Oil, Paint and Drug Reporter

The Market Authority Since 1871
Chemicals-Dyestuffs-Drugs-Paints-Oils-Fertilizers

September 24, 1928: Vol. 114: No. 13 — 12 Gold Street, New York, N. Y.

ALCOHOL

PURE AND DENATURED

REPRESENTATIVES CARRYING WAREHOUSE STOCKS—
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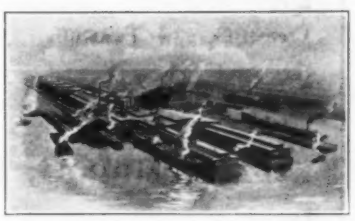
WHITING	CHLOR PHENOLS
BENZOL	THIONYL CHLORIDE
SULPHURYL CHLORIDE	QUININE BISULPHATE



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Solvents

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Samples on request
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Oil, Paint and Drug Reporter

The Market Authority Since 1871
Chemicals-Dyestuffs-Drugs-Paints-Oils-Fertilizers

Founded October 18, 1871, by William O. Allison

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Latest Market Developments

Manila Copra

WASHINGTON, Sept. 21, 1928.

Copra arrivals at Manila during August were the heaviest on record, according to a cable from the American trade commissioner. Increased production brought selling pressure and a decline in prices of one peso per picul. All mills operated throughout the month. Early in September the market was steadier owing to a slight decrease in arrivals. Resecado, now 12 pesos per picul, f. o. b. Manila; 11⅞ pesos, f. o. b. Hondagua, and 11⅞ pesos f. o. b. Cebu.

Window Glass Higher

PITTSBURGH, Sept. 22, 1928.

Window glass prices have been advanced approximately 8 percent on all the principal sizes and grades, the advance becoming effective October 1.

Linseed Oil Higher

Linseed oil was advanced 1 point by crushers Saturday owing to the rise in seed. Quotations were 10c. to 10.1c. per pound in car lots in cooperage and 9.2c. to 9.3c. per pound in tankcars.

An official report on the new flaxseed acreage in Argentina was cabled Saturday. The area for the season of 1928-29 was put at 7,385,000 acres, against 6,802,000 acres in September last year.

Miscellaneous Oils Steady

Business in miscellaneous oils, fats and greases was quiet Saturday but prices were generally well maintained. Offerings of Chinawood oil were light and the market was firm. Crude corn oil was firm with offerings limited.

Shellac Easier

Cables from Calcutta made the shellac market there slightly easier and lower. London quotations came in at 223s. 6d. per hundredweight for October and 215s. for the December deliveries.

Sharp Rise in Tin Prices

A sharp jump of over 1c. per pound in quotations for metallic tin at the close of last week to 49c. per pound focused attention on the strong position of the salts of this metal. World's tin consumption for the period January to August was 11 percent above the totals of the year before.

Cottonseed Meal Higher

Cottonseed meal, 7 percent ammonia, was advanced Saturday $1.50 per ton to $33.50 to $34.50, in bags, f. o. b. mills, for October delivery meal.

Memphis Cottonseed

MEMPHIS, Sept. 21, 1928.

Crude cottonseed oil 8¼c. per pound, bid; sales to small buyers at 8¼c. Mills not offering. Seed receipts small. Reports indicate that yield of cotton per acre is turning out smaller than expected.

Dallas Cottonseed

DALLAS, Sept. 21, 1928.

Cottonseed products quiet. Seed $33 per ton, f. o. b. Crude oil 7¾ to 7⅞c. per pound. Cake and meal, 43 percent, $37 per ton. Hulls $6 per ton. Mill run linters 4 to 5 cents per pound. Weather warm.

Cottonseed Oil Closing Prices

Saturday prices advanced with cotton. Closing prices were:—

	Sept. 22.	Sept. 15.
September	9.90@10.35	9.75@ 9.85
October	9.93@10.00	9.85@—
November	9.92@10.03	9.63@ 9.75
December	10.04@—	9.70@ 9.71
January	10.09@—	9.76@ 9.78
February	10.16@10.25	9.75@ 9.88
March	10.25@10.27	9.92@—
April	10.29@10.35	9.95@10.05
Spot	9.85@10.40	9.75@—
Crude	8.00@ 8.12½	8.00@ 8.05

Sales, 6,100 barrels; week's total, 52,500 barrels; since January 1, 3,814,900 barrels.

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Biggest thing in the world

~ yet it functions like clockwork

PARDON the ambitious comparison—but there really is some justification for it.

We're hardly as vast as the sea, yet we do cover a lot of territory. We don't quite challenge the tides for split-second regularity, but we do distribute large quantities of alcohol chemicals over the industrial map, on a pretty dependable schedule!

How the sea does it is somewhat of a mystery. How we do it is no mystery at all.

Warehouses throughout the country. Our own tank cars —steamers—storage tanks. Eight large producing plants. Never a let-down in operation. Never a shortage in any of the alcohol products you may want.

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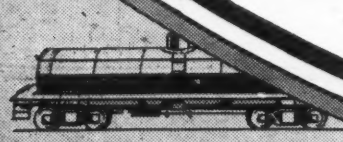
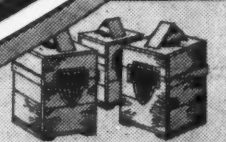
Trisodium Phosphate Muriatic Acid Acetic Acid
Sodium Sulphide (Chip Patented) Anhydrous Bisulphite Soda
And other Heavy Chemicals of Standard Quality
Insecticides and Fungicides

Baker & Adamson Quality C. P. Acids and Reagents, which may be purchased from the General Chemical Company or local dealers.





IMPORTS, EXPORTS, CHARTERS

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Imports at New York

ACID, CRESYLIC—85 dms, 42 tons, 5 cwt, 3 qtr, 20 lbs, American Cyanamid Co, Kerhonkson, Manchester
34 dms, 35,710 lbs, Lehn & Fink, Inc, West Eldara, Antwerp
FORMIC—84 carboys, 13,574 lbs, The Bayer Co, Inc, Westphalia, Hamburg
84 carboys, 13,574 lbs, Innis, Speiden & Co, Vancouver, Hamburg
TARTARIC—200 cks, 50,930 lbs, Wm Neuberg, Ambridge, Rotterdam
125 cks, Wm Neuberg, Volendam, Rotterdam
260 bbls, Hans Hinrichs Chem Corp, Laura C, Bari
ALBUMEN, EGG—56 cs, 11,200 lbs, T M Duche & Sons, President Garfield, Shanghai
56 cs, 11,200 lbs, Bridges, Neumer & Co, Kabo, Hankow
112 cs, 22,400 lbs, Jardine, Matheson & Co, Kabo, Shanghai
112 cs, 22,400 lbs, Nippon, Yusen & Kaisha, Kabo, Taku
ALCOHOL, BUTYL—14 dms, 12,894 lbs, Grasselli Dyestuff Corp, Ambridge, Rotterdam
DENATURED—54 dms, Virgin Island Prod Corp, Matura, St Croix
140 dms, C Esteva, Porto Rico, Arecibo
ALUMINA, HYDRATE—1 cs, 140 lbs, La Salomon & Bro, Ambridge, Rotterdam
AMMONIA, BICARBONATE—30 cks, 18,546 lbs, Kuttroff, Pickhardt & Co, Ambridge, Rotterdam
NITRATE—391 cks, Kuttroff, Pickhardt & Co, Ranenfjord, Brevik
537 cks, R W Greef & Co, Ranenfjord, Brevik
SULPHATE—250 bgs, 55,000 lbs, Synthetic Nitrogen Prod Co, Westphalia, Hamburg
SULPHATE NITRATE—3,444 bgs, 1,197,680 lbs, Synthetic Nitrogen Prod Co, Vancouver, Hamburg
SULPHOCYANIDE — 8 cks, Mallinckrodt Chem Works, Franconia, Liverpool
AMMONIAC SAL—134 cks, 83,998 lbs, Kuttroff, Pickhardt & Co, Ambridge, Rotterdam
ANTIMONY, OXIDE—100 cks, C W Leavitt & Co, Paris, Havre
REGULUS—330 cs, Stanley Fullwood, Camaguey, Tampico
300 cs, Wah Chang Trading Corp, President Garfield, Shanghai
528 cs, Wah Chang Trading Corp, President Garfield, Hankow
250 cs, Wah Chang Trading Corp, Kabo, Hankow
SALT DOUBLE—20 cks, 4,730 lbs, A Klipstein & Co, Vancouver, Hamburg
SULPHURET—5 cks, V G Thomas, Minnetonka, London
300 cks, 67,485 lbs, Michelin & Co, Pipestone County, Bordeaux
ARSENIC, RED POWDERED—100 cks, 24,413 lbs, A Klipstein & Co, Vancouver, Hamburg
WHITE POWDERED—81 cks, 22,077 lbs, Pfaltz & Bauer, Westphalia, Hamburg
ARTISTS' MATERIAL—2 cs, Winsor & Newton, Minnetonka, London
ASBESTOS—457 bgs, W D Crumpton & Co, Minnetonka, London
370 bgs, Standard Bank South Africa, Deutschland, Hamburg
667 bgs, Standard Bank South Africa, Reliance, Hamburg
BARK, DOGWOOD—33 bgs, Peek & Velsor, Inc, Maravi, Kingston
MEDICINAL—3 bls, R Hilliers Son Co, Saturnia, Trieste
SOAP—140 bgs, 11,000 lbs, S B Penick & Co, Inc, Westphalia, Hamburg
31 bgs, 3,418 lbs, S B Penick & Co, Inc, Reliance, Hamburg
BARYTES—1,100,000 kilos, 2,420,000 lbs, The Ore & Chem Corp, Volendam, Rotterdam
400 bgs, 44,000 lbs, A Klipstein & Co, Vancouver, Hamburg
BEANS, CASTOR — 9,982 bgs, 34,937 bus, Volkart Bros, Stanley, Okha Port
14,000 bgs, 49,000 bus, Ralli Bros, Stanley, Jamnagar
13,784 bgs, 48,244 bus, Ralli Bros, Stanley, Bombay
COCOA—100 bgs, National Bank of Commerce, City of Durban, Colombo
75 bgs, National Bank of Commerce, City of Shanghai, Colombo
480 bgs, Schall, Pavenstedt & Co, San Lorenzo, Santo Domingo
594 bgs, Ricart & Co, San Lorenzo, Santo Domingo
1,250 bgs, W R Grace & Co, Santa Cruz, Guayaquil
800 bgs, Fruit Dispatch Co, Maravi, Cristobal
826 bgs, L Connor, Cathlamet, Lagos
4,800 bgs, African & Eastern Trading Co, Inc, Cathlamet, Accra
1,120 bgs, Barclay Bank, Cathlamet, Winnebah
984 bgs, various consignees, Matura, Trinidad
VANILLA—1 cs, 125 lbs, Coupey Fils, President Garfield, Marseilles
50 cs, 6,250 lbs, Thurston & Braidich, President Garfield, Marseilles
8 cs, 1,000 lbs, J N Limbert & Co, President Garfield, Marseilles
32 cs, 4,000 lbs, George Lueders & Co, Patria, Marseilles
25 cs, 3,125 lbs, George Lueders & Co, Patria, Marseilles
27 cs, 3,375 lbs, Thurston & Braidich, Patria, Marseilles
51 cs, 6,375 lbs, P & P Der
BERRIES, JUNIPER—25 bgs, 3,300 lbs, King & Howe, Cabo Espartel, Leghorn
BLANC FIXE — 38 cks, 24,459 lbs, A Hurst Co, Vancouver, Hamburg
BLEACHING POWDER — 25 cks, H Kohnstamm & Co, Cedric, Liverpool
BONE ASH—20 bgs, R F Downing & Co, Minnetonka, London
MEAL—562 bgs, 55,968 lbs, Manahan Chem Co, West Eldara, Antwerp
PHOSPHATE, PRECIP — 510 bgs, 112,200 lbs, Delft Gelatin Works, Ambridge, Rotterdam
BRISTLES — 78 cs, F H Cone & Co, Inc, President Garfield, Shanghai
50 cs, Caldbeck Macgregor Export Co, President Garfield, Shanghai
110 cs, F W Von Stade, President Garfield, Moukden
55 cs, Wooster Brush Co, President Garfield, Moukden
2 bbls, M Broverman & Son, Deutschland, Hamburg
9 cs, Globe Shipping Co, Deutschland, Hamburg
71 cs, Gallagher & Ascher, West Eldara, Antwerp
3 cks, Gallagher & Ascher, West Eldara, Antwerp
BRISTLES—103 cs, Equitable Trust Co, Reliance, Hamburg
55 cs, Nippon, Yusen & Karsha, Kako, Taku
BRONZE POWDER—7 cs, Leo Uhlfelder & Co, Stuttgart, Bremen
16 cs, National City Bank, Arabic, Antwerp
13 cs, Gallagher & Ascher, Deutschland, Hamburg
4 cs, A C Rempert & Co, Deutschland, Hamburg
25 cs, Baer Bros, Berlin, Bremen
BUTYL ACETATE—250 dms, Kuttroff, Pickhardt & Co, Ambridge, Rotterdam
CALCIUM CHLORIDE—14 dms, G Delawana, Volendam, Rotterdam
METAL—2 cs, 475 lbs, Kuttroff, Pickhardt & Co, Vancouver, Hamburg
CALOMEL—5 cs, E Fougera & Co, Minnetonka, London
CAMPHOR, CRUDE — 350 cs, Mitsui & Co, Kako, Keriung
CANTHARIDES—14 cs, 1,487 lbs, J L Hopkins & Co, Vancouver, Hamburg
CARBON, DECOLORIZING — 110 bgs, 22,000 lb, L A Salomon & Bro, Volendam, Rotterdam
CASSIA—200 bls, B H Old & Co, Kako, Hongkong
50 cs, Bank of America, Kako, Hongkong
BUDS—100 cs, Hanish, Love & Paull, Inc, Kako, Canton
CELLULOSE ACETATE — 2 cs, Cellulose Corpn, Franconia, Liverpool
COMPOUND—33 cks, 11,649 lbs, Kuttroff, Pickhardt & Co, Vancouver, Hamburg
15 cs, Kuttroff, Pickhardt & Co, Vancouver, Hamburg
CHALK, BLOCK—500,000 kilos, 1,100,000 lbs, Taintor Trading Co, Inc, Pipestone County, Dunkirk
CINNAMON QUILLS—175 bls, 17,500 lbs, A Joensson & Co, Inc, City of Shanghai, Colombo
100 bls, 10,000 lbs, G T German, City of Shanghai, Colombo
CLAY—35 cks, 51,854 lbs, Hugo Kastor, West Eldara, Rotterdam
163 bbls, E Faber Pencil Co, Suevier, Antwerp
CHINA—511 tons, 14 cwt, Moore & Munger, Holland, Fowey
1,095 tons, 12 cwt, English China Clay Sales Corpn, Holland, Towey
150 bgs, 33,000 lbs, L A Salomon & Bro, Reliance, Hamburg
25 cks, Moore & Munger, New York, City of Bristol
200 bgs, Moore & Munger, New York, City of Bristol
25 cks, C T Wilson & Co, New York, City of Bristol
74 cks, L A Salomon & Bro, New York, City of Bristol
160 bgs, L A Salomon & Bro, New York, City of Bristol
SAGGER—100 tons, English China Clay Sales Corpn, Holland, Fowey
CLOVES—84 bgs, Bank of America, Saleier, Macassar
COBALT METAL—40 bbls, Belgo American Trading Corpn, Suevier, Antwerp
15 cs, Belgo American Trading Corpn, Suevier, Antwerp
OXIDE BLACK—50 bbls, Belgo American Trading Corpn, Suevier, Antwerp
COCHINEAL—15 bgs, 2,100 lbs, Ultramares Corpn, Santa Teresa, Callao
COCONUT—244 bgs, 24,400 lbs, Di Giogio Fruit Corpn, Amapala, Kingston
250 bgs, 25,000 lbs, A S Lascelles & Co, Amapala, Kingston

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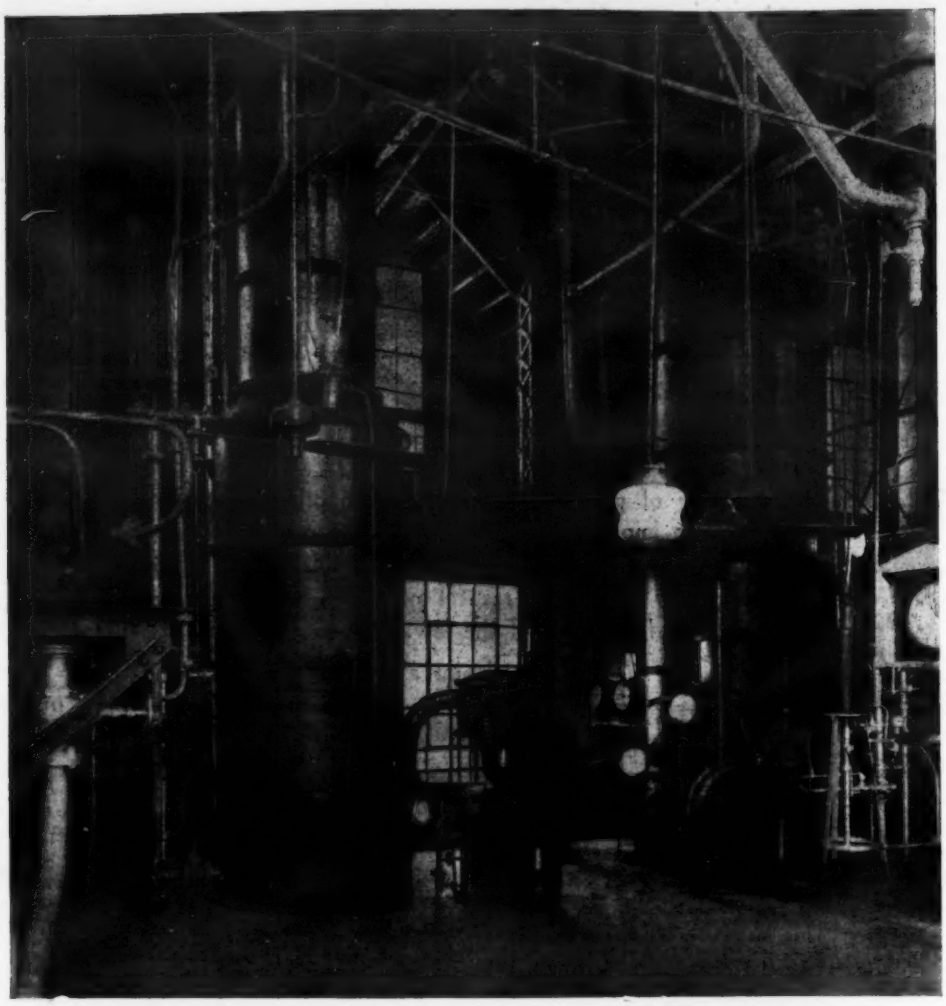
Oil, Paint and Drug Reporter, Inc.

PRECIPITATED—100 bgs, 22,000 lbs, R Hilliers Son Co, Minnetonka, London
120 bgs, 9 tons, 2 cwt, 16 lbs, H J Baker & Bro, Franconia, Liverpool
200 bgs, H J Baker & Bro, New York City, Bristol
CHEMICALS—15 cs, The Bayer Co, Inc, Ambridge(Rotterdam
3 cks, The Bayer Co, Inc, Ambridge, Rotterdam
55 cs, Mallinckrodt Chem Corpn, Drottningholm, Gothenburg
400 bgs, H Sundheimer, Inc, Lancaster, London
13 cs, Burroughs, Welcome & Co, Lancaster, London
3 cs, E Fougera & Co, Minnetonka, London
100 cs, American Bluefriesveen, Inc, Volendam, Rotterdam
217 cks, Hummel & Robinson Corpn, Volendam, Rotterdam
36 jugs, General Dyestuff Corpn, Volendam, Rotterdam
27 bgs, General Dyestuff Corpn, Volendam, Rotterdam
15 dms, General Dyestuff Corpn, Volendam, Rotterdam
2 cks, General Dyestuff Corpn, Volendam, Rotterdam
3 cs, General Dyestuff Corpn, Volendam, Rotterdam
27 cks, 23,533 lbs, Innis, Speiden & Co, Westphalia, Hamburg
6 cs, 717 lbs, Jungmann & Co, Westphalia, Hamburg
90 dms, 52,586 lbs, American Exchange Irving Trust Co, Deutschland, Hamburg
180 bbls, 86,567 lbs, Hummell & Robinson Corpn, Westphalia, Hamburg
50 bbls, 23,733 lbs, International Acceptance Bank, Deutschland, Hamburg
7 cs, Jungmann & Co, Deutschland, Hamburg
200 bgs, Roessler & Hasslacher Chem Co, West Eldara, Antwerp
10 pkgs, The Ciba Co, Inc, Paris, Havre
103 cs, State Forwarding & Shipping Co, Paris, Havre
65 cks, Pfaltz & Bauer, Berlin, Bremen
3 cs, Pfaltz & Bauer, Berlin, Bremen
117 dms, 101,637 lbs, Kuttroff, Pickhardt & Co, Vancouver, Hamburg
50 dms, 12,320 lbs, Innis, Speiden & Co, Vancouver, Hamburg
3 cs, Eli Lilly Co, Vancouver, Hamburg
15 cks, Hans Hinrichs Chem Corpn, Vancouver, Hamburg
12 dms, Hans Hinrichs Chem Corpn, Vancouver, Hamburg
25 cks, 11,935 lbs, Harshaw, Fuller & Goodwin Co, Vancouver, Hamburg
40 cs, 6,545 lbs, Calcyanide Co, Vancouver, Hamburg
4 cs, 1,500 lbs, Roessler & Hasslacher Chem Co, Vancouver, Hamburg
65 cks, 23,922 lbs, Roessler & Hasslacher Chem Co, Vancouver, Hamburg
10 cks, 2,398 lbs, Pfaltz & Bauer, Vancouver, Hamburg
31 cks, 12,623 lbs, Jungmann & Co, Vancouver, Hamburg
3 dms, 2,651 lbs, J W Lyon, Vancouver, Hamburg
5 cs, 1,370 lbs, Perry Ryer & Co, Vancouver, Hamburg
40 cs, 5,460 lbs, Mallinckrodt Chem Works, Vancouver, Hamburg
3 cks, 774 lbs, Fezandie & Sperrle, Reliance, Hamburg
12 bbls, 2,274 lbs, H Falck & Co, Reliance, Hamburg
CHROME ORE—1,000 tons, Mitsubishi Shoji Kaisha, City of Shanghai, Momugao
CINCHONIDINE—5 cs, R W Greef & Co, Volendam, Rotterdam
CINNAMON QUILLS—50 bls, 5,000 lbs, C T Wilson & Co, City of Durban, Colombo
367 bls, 36,700 lbs, A Joensson & Co, Inc, City of Durban, Colombo
100 bls, 10,000 lbs, C T Wilson & Co, City of Shanghai, Colombo
400 bgs, 40,000 lbs, Banana Sales Corpn, Cananova, Pt Antonio
133 bgs, 13,300 lbs, Franklin Baker Co, Cananova, Pt Antonio
53 bgs, 5,300 lbs, Bernard Abel Co, San Lorenzo, San Juan
1,050 bgs, 105,000 lbs, M A De Leon & Co, Maravi, Cristobal
491 bgs, 49,100 lbs, Franklin Baker Co, Maravi, Kingston
856 bgs, 85,600 lbs, Franklin Baker Co, Santa Marta, Kingston
232 bgs, 23,200 lbs, L Schepp & Co, Santa Marta, Kingston
1,000 bgs, 100,000 lbs, Hills Bros Co, Matura, Trinidad
175 bgs, 17,500 lbs, Di Giorgio Fruit Corpn, Ceiba, Jamaica
25 bgs, 2,500 lbs, C V Smith & Co, Porto Rico, Aguadilla
279 bgs, 27,900 lbs, Franklin Baker Co, Porto Rico, Aguadilla
830 bgs, 83,000 lbs, L Schepp & Co, Porto Rico, San Juan
DESIC—150 cs, 19,500 lbs, I Harrison & Whitney, City of Durban, Colombo
100 cs, 13,000 lbs, Central Union Trust Co, City of Durban, Colombo
980 cs, 127,400 lbs, consignee to follow, City of Durban, Colombo
200 cs, 26,000 lbs, Equitable Trust Co, City of Shanghai, Colombo
20 cs, 1,600 lbs, Habicht Braun & Co, Mahseer, Colombo
150 cs, 19,500 lbs, T M Duche & Sons, Mahseer, Colombo
200 cs, 26,000 lbs, W R Grace & Co, Mahseer, Colombo
150 cs, 19,500 lbs, Dodwell & Co, President Garfield, Colombo
5,050 cs, 656,500 lbs, Franklin Baker Co, President Garfield, Manila
COLOCYNTH—17 bgs, 2,224 lbs, J L Hopkins & Co, Mahseer, Pt Sudan
10 bgs, 1,322 lbs, King & Howe, Mahseer, Pt Sudan
COLORS, ALIZARIN—36 cks, General Dyestuff Corpn, Ambridge, Rotterdam
11 jugs, General Dyestuff Corpn, Ambridge, Rotterdam
2 cs, General Dyestuff Corpn, Ambridge, Rotterdam
8 dms, General Dyestuff Corpn, Volendam, Rotterdam
1 cs, General Dyestuff Corpn, Volendam, Rotterdam
17 cks, General Dyestuff Corpn, Volendam, Rotterdam
ANILIN—40 cks, General Dyestuff Corpn, Ambridge, Rotterdam
4 cs, General Dyestuff Corpn, Ambridge, Rotterdam
29 dms, General Dyestuff Corpn, Volendam, Rotterdam
4 cs, General Dyestuff Corpn, Volendam, Rotterdam
186 cks, General Dyestuff Corpn, Volendam, Rotterdam
6 cks, General Dyestuff Corpn, Westphalia, Hamburg
1 cs, General Dyestuff Corpn, Westphalia, Hamburg
59 pkgs, The Ciba Co, Inc, Paris, Havre
14 cks, The Geigy Co, Inc, Paris, Havre
4 cks, Carbic Color & Chem Co, Paris, Havre
18 cylinders, Sandoz Chem Prod Co, Paris, Havre
29 cks, Wetterwald & Pfister Co, Reliance, Hamburg
ARTISTS—37 cs, M Grumbacher, Volendam, Rotterdam
DRY—4 cs, Devoe & Raynolds, Minnetonka, London
EARTH—46 bbls, 25,064 lbs, F & R Trading Corpn, Westphalia, Hamburg
40 cks, Reichard-Coulston, Inc, Suevier, Antwerp
COPPER SULPHATE—200 dms, 117,285 lbs, Nichols Cooper Co, Vancouver, Hamburg
COPRA—15 bgs, Franklin Baker Co, Santa Marta, Kingston
CORK SHAVINGS—95 bls, 9,500 lbs, Lawrence Johnson & Co, Cabo Santa Maria, Seville
WASTE—310 bls, 51,000 lbs, Crown Cork Seal Co, Cabo Santa Maria, Seville
405 bls, 40,500 lbs, Lawrence Johnson & Co, Cabo Santa Maria, Seville
2,584 bls, 258,400 lbs, Lawrence Johnson & Co, Misty Law, Bone
750 bls, 75,000 lbs, Wicander & Co, Blue Triangle, Palamos
WOOD—160 bls, 16,000 lbs, Lawrence Johnson & Co, Misty Law, Bone
CORNSILK—43 bls, 4,490 lbs, King & Howe Cabo Espartel, Leghorn
CRYOLITH SYNTH—100 bgs, 22,220 lbs, Jungmann & Co, Vancouver, Hamburg
CUDBEAR—2 cks, S B Penick & Co, Inc, Minnetonka, London
CUTTLEFISH BONES—245 cs, American Cuttlefish Bone Co, Patria, Marseilles
50 straps, American Cuttlefish Bone Co, Conte Biancamano, Genoa
DICHLORETHYLENE—1 cs, 178 lbs, Kuttroff, Pickhardt & Co, Ambridge, Rotterdam
DRUGS—10 cs, Lo Curto & Funk, Minnetonka, London
4 cs, Opo Pharm Corp, Conte Biancamano, Genoa
3 cs, Alps Drug Co, Conte Biancamano, Genoa
EARTH, FULLER'S—250 bgs, 50,000 lbs, L A Salomon & Bro, Minnetonka, London
600 bgs, 120,000 lbs, L A Salomon & Bro, New York City, Bristol
EGG YOLK—56 cs, 11,200 lbs, T M Duche & Sons, Kako, Hankow
89 cs, 17,800 lbs, Arnhold & Co, Kako, Hankow
80 cs, 16,000 lbs, B C Ritchie & Co, Kako, Hankow
208 cs, 41,600 lbs, Nippon, Yusen & Kaisha, Kako, Taku
EPSOM SALT—100 bgs, 22,000 lbs, Th Goldschmidt Corp, Berlin, Bremen
200 cks, Th Goldschmidt Corp, Berlin, Bremen
ERGOT—32 bgs, McKesson & Robbins, Patria, Lisbon
FERRO CHROME—81 cs, W R Grace & Co, Drottningholm, Gothenburg
FLAXSEED — 24,080 bgs, 52,976 bus, Spencer Kellogg & Sons, Lulea, Buenos Aires
4,611,288 kilos, 184,452 bus, Spencer Kellogg & Sons, Lulea, Rosario
FLORAL WATER—25 pkgs, Magnus, Mabee & Raynard, Patria, Marseilles
FLOWERS, CHAMOMILE — 15 cs, 4,279 lbs, S B Penick & Co, Inc, Vancouver, Hamburg
30 cs, 8,250 lbs, Peek & Velsor, Inc, Vancouver, Hamburg
10 cs, 2,750 lbs, J L Hopkins & Co, Vancouver, Hamburg
INSECT—3 bls, R Hillier's Son Co, Saturnia, Trieste
MEDICINAL—9 bls, 1,130 lbs, S B Penick & Co, Inc, Westphalia, Hamburg
3 bls, 352 lbs, R Hillier's Son Co, Deutschland, Hamburg
2 bgs, 220 lbs, S B Penick & Co, Inc, Reliance, Hamburg
1 bl, 134 lbs, S B Penick & Co, Inc, Reliance, Hamburg
GELATIN—21 cs, Pathe Film Mfg Corp, Minnetonka, London
22 cs, Paul Puttmann, Volendam, Rotterdam
45 cs, W E Miller, Paris, Havre
GLASS, PLATE—6 cs, Gendit, Drey & Co, Stuttgart, Bremen
11 cs, Semon, Bache & Co, Arabic, Antwerp
5 cs, French-American Banking Corp, Arabic, Antwerp
52 cs, Schrenck & Co, Arabic, Antwerp
46 cs, Mark Bros, Arabic, Antwerp
20 cs, Semon, Bache & Co, Arabic, Antwerp
69 cs, L Solomon & Son, Arabic, Antwerp
20 cs, Van Oppen & Co, Franconia, Liverpool
2 cs, Farmers Loan & Trust Co, Franconia, Liverpool
4 cs, Lazard Bros, Westphalia, Hamburg
11 cs, Mark Bros, Westphalia, Hamburg
4 cs, Nathan Lyon, Westphalia, Hamburg
10 cs, Myer Plate Glass Co, Westphalia, Hamburg
22 cs, Lazard Bros, Deutschland, Hamburg
1 cs, Semon, Bache & Co, Berlin, Bremen
45 cs, Brown Bros & Co, Suevier, Antwerp
12 cs, French-American Banking Corp, Suevier, Antwerp
SHEET—6 cs, Semon, Bache & Co, Westphalia, Hamburg
16 cs, Nathan Lyon, Westphalia, Hamburg
25 cs, Schrenck & Co, Westphalia, Hamburg
13 cs, L Solomon & Son, Westphalia, Hamburg
60 cs, Bienenfeld Importing Co, Westphalia, Hamburg
103 cs, Royal Glass Works, Deutschland, Hamburg
50 cs, J H Werbelowsky & Son, Deutschland, Hamburg
14 cs, L Cohen, Deutschland, Hamburg
41 cs, Schrenck & Co, Deutschland, Hamburg
WINDOW—33 cs, L Solomon & Son, Arabic, Antwerp
588 cs, Semon, Bache & Co, Arabic, Antwerp
8 cs, Leo Popper & Son, Franconia, Liverpool
119 cs, Farmers Loan & Trust Co, Franconia, Liverpool
123 cs, Leo Popper & Son, Westphalia, Hamburg
20 cs, Leo Popper & Son, Cameronia, Glasgow
145 cs, Leo Popper & Son, Deutschland, Hamburg
12 cs, J H Werbelowsky & Son, Deutschland, Hamburg
58 cs, Petrocelli, Blusse & Magers, West Eldara, Antwerp
85 cs, Manufacturers Trust Co, Suevier, Antwerp
1,327 cs, Bienenfeld Importing Co, Suevier, Antwerp
1,028 cs, Royal Glass Works, Suevier, Antwerp
GLUE—160 bls, T M Duche & Sons, Arabic, Antwerp
52 cks, W E Miller, Arabic, Antwerp
66 cks, W E Miller, Arabic, Antwerp
48 bls, W E Miller, Arabic, Antwerp
400 bgs, Norbert L Lederer, Volendam, Rotterdam
50 bgs, Gallagher & Ascher, Cedric, Liverpool
100 bgs, C B Hewith & Bros, Inc, American Merchant, London
500 bgs, Gallagher & Ascher, Deutschland, Hamburg
GLYCERIN—8 dms, 5,376 lbs, Heyden Chem Corp, Ambridge, Rotterdam
10 dms, Parsons & Petit, Arabic, Antwerp

Current Prices are now printed in connection with the Market Reports. See index, page 2.

AMERSOL
QUALITY - CONTROL SERIES
Bulletin No. 4
SUBJECT: Control of Distillation and Rectification



CONTINUOUS FRENCH DISTILLATION PROCESS USED IN ONE OF THE MODERN AMER-SOL ALCOHOL PLANTS
(Partial View of Stills)

¶ The Continuous Process of Distillation and Rectification, as employed in AMER-SOL plants, is under rigid mechanical and laboratory control. It produces AMER-SOL Alcohol of the highest grade . . . by effecting the closest possible separation of Alcohol from fermentation impurities and the by-products of Alcohol. It also gives a product of utmost uniformity.

"AMER-SOL Quality-Control Bulletins," describing the successive stages of modern Alcohol manufacture, will be sent to those who make request on their letter head.

AMERICAN SOLVENTS & CHEMICAL *Corporation*
Executive Offices: 285 MADISON AVENUE, NEW YORK
Plants: Harvey, La. Everett, Mass. New Orleans, La. Agnew, Cal. Albany, N. Y.
SALES OFFICES AND WAREHOUSES ALL OVER THE COUNTRY. UNRIVALLED SERVICE.

AMERSOL
BRAND
Industrial Alcohol
(All Formulas)
SOLVENTS - PLASTICIZERS - CHEMICALS

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GLYCERIN—72 dms, Harshaw, Fuller & Goodwin Co, Tolon, Havana
GRAPHITE—150 bbls, 90,000 lbs, Paterson, Boardman & Knapp, City of Durban, Colombo
166 bbls, 99,600 lbs, Jos Dixon Crucible Co, City of Shanghai, Colombo
333 bgs, 66,600 lbs, G F Pettinos, Mahseer, Colombo
GREASE, GRAPHITE—10 cs, 2,448 lbs, Van Oppen & Co, Inc, Westphalia, Hamburg
WOOL—65 bbls, Pfaltz & Bauer, Stuttgart, Bremen
10 kegs, E M Javitz & Son, Lancaster, London
1 bbl, E M Javitz & Son, Lancaster, London
1 cs, N J Molmstrom & Co, Deutschland, Hamburg
100 dms, N J Molmstrom & Co, Deutschland, Hamburg
GUM, ARABIC—157 bgs, 33,550 lbs, S B Penick & Co, Inc, City of Shanghai, Pt Sudan
100 bgs, 22,440 lbs, F Vliet Co, Inc, Mahseer, Pt Sudan
250 bgs, 56,049 lbs, Stanley Jordan & Co, Mahseer, Pt Sudan
15 bgs, 3,564 lbs, Frank Vliet Co, Inc, Vancouver, Hamburg
BENZOIN—25 cs, S B Penick & Co, Inc, Volendam, Rotterdam
CHICLE—34 bls, Royal Bank of Canada, Matura, Ciudad Bolivar
COPAL—100 bgs, W H Scheel, Arabic, Antwerp
1 cs, E Everett Carleton & Co, Saleier, Macassar
76 bskt, J D Lewis, Saeier, Macassar
188 bskt, A Klipstein & Co, Saleier, Macassar
966 bskt, Innes & Co, Saeier, Macassar
364 bskt, L C Gillespie & Sons, Saleier, Macassar
246 bskt, T G Cooper & Co, Saleier, Macassar
199 bskt, H W Peabody & Co, Saleier, Macassar
146 bskt, France, Campbell & Darling, Saleier, Macassar
76 bskt, Bank of United States, Saleier, Macassar
162 bskt, Paterson, Boardman & Knapp, Saleier, Macassar
311 bgs, Paterson, Boardman & Knapp, Saleier, Macassar
250 bgs, France, Campbell & Darling, President Garfield, Manila
20 cs, W H Scheel, President Garfield, Manila
206 bgs, W H Scheel, President Garfield, Manila
DAMMAR—100 cs, Innes & Co, Saleier, Padang
83 bgs, Paterson, Boardman & Knapp, Saleier, Batavia
50 cs, Paterson, Boardman & Knapp, Saleier, Batavia
200 cs, Innes & Co, Saleier, Batavia
192 bgs, Paterson, Boardman & Knapp, President Garfield, Singapore
512 bgs, S Winterbourne & Co, President Garfield, Singapore
DAMMAR BURNT—25 cks, Red Hand Composition Co, Minnetonka, London
10 bgs, Red Hand Composition Co, Minnetonka, London
ELEMI—112 cs, S Winterbourne & Co, President Garfield, Manila
PERILLA—800 bgs, Wm Wrigley Jr Co, Tolon, Cristobal
YACCA—250 bgs, S Winterbourne & Co, Canadian Leader, Pt Adelaide
GYPSUM—336 bgs, 33,030 lbs, L A Salomon & Bro, Reliance, Hamburg
HAIR, HORSE—100 cs, F H Cone & Co, Inc, President Garfield, Monkden
100 cs, Block Bros, President Garfield, Monkden
HUMAN—6 cs, Lo Curcia, Patria, Palermo
11 bgs, Lo Curcia, Patria, Palermo
10 cs, Bank of United States, Reliance, Hamburg
7 bls, Bank of United States, Reliance, Hamburg
7 bls, Nippon, Yusen & Karsha, Kabo, Taku
HERBS, MEDICINAL—11 bls, 979 lbs, Peek & Velsor, Inc, Deutschland, Hamburg
1 bl, 220 lbs, S B Penick & Co, Inc, Deutschland, Hamburg
2 bls, 52 lbs, J L Hopkins & Co, Vancouver, Hamburg
9 bls, 2,250 lbs, Eli Lilly & Co, Vancouver, Hamburg
5 bgs, 2,338 lbs, Eli Lilly & Co, Vancouver, Hamburg
21 bls, Peek & Velsor, Inc, Laura C, Trieste
10 bgs, King & Howe, Laura Ca, Trieste
5 bls, King & Howe, Laura Co, Trieste
INTERMEDIATES—65 cks, 13,098 lbs, Grasselli Dyestuff Corpn, Ambridge, Rotterdam
27 cks, General Dyestuff Corpn, Ambridge, Rotterdam
1 ck, General Dyestuff Corpn, Westphalia, Hamburg
1 cs, General Dyestuff Corpn, Westphalia, Hamburg
IODINE—33 bbls, Nash, Watjen & Bangs, Santa Teresa, Iquique
IRON, CHLORIDE—75 cks, 27,995 lbs, The Goldschmidt Corpn, Vancouver, Hamburg
OXIDE—50 cks, 18 tons, 10 cwt, J A McNulty, Franconia, Liverpool
82 cks, 49,200 lbs, Reichard-Coulston, Inc, Cedric, Liverpool
53 cks, 31,800 lbs, J A McNulty, Cedric, Liverpool
104 cks, C J Osborn & Co, New York City, Bristol
LAUREL WATER—15 pkgs, Magnus, Mabee & Raynard, Patria, Marseilles
LEAD ACETATE—84 bbls, 48,470 lbs, consignee to follow, Deutschland, Hamburg
LEAVES, LAUREL—111 bgs, 11,000 lbs, R Moelhausen, Cabo Espartel, Marseilles
111 bgs, C E Armstrong, Patria, Marseilles
MEDICINAL—8 bls, 1,089 lbs, Peek & Velsor, Inc, Westphalia, Hamburg
8, bls, 1,020 lbs, R Hillier's Son Co, Deutschland, Hamburg
NUTMEG—1 bg, Peek & Velsor, Inc, Maravi, Kingston
PATCHOULI—120 bls, Dodge & Olcott Co, President Garfield, Penang
79 bls, W J Bush & Co, President Garfield, Penang
SENNA—200 bls, Peek & Velsor, Inc, City of Durban, Suez
200 bls, Murray & Nickells Mfg Co, City of Durban, Suez
28 bls, Smith, Stenistreet & Co, City of Durban, Suez
400 bls, S B Penick & Co, Inc, City of Durban, Suez
225 bls, Interstate Trust Co, City of Durban, Suez
40 bls, consignee to follow, City of Durban, Suez
STRAMONIUM—20 bls, 4,470 lbs, King & Howe, Cabo Espartel, Leghorn
LICORICE PASTE—10 cs, A M Leslie, Patria, Marseilles
LIME JUICE—15 puns, J P Smith & Co, American Merchant, London
1 cs, J P Smith & Co, American Merchant, London
LIME JUICE, CONCENTRATED—9 bbls, Merck & Co, Santa Teresa, Cristobal
4 cks, Planters' Prod Co, Matura, Dominica
LITHOFONE—10 cks, Whittaker, Clark & Daniels, Volendam, Rotterdam
MACE—13 bbls, Knickerbocker Mills Co, Matura, Grenada
9 bls, E L Prior & Co, Matura, Grenada
MAGNESIA—8 cs, J Personeni, Colombo, Genoa
1 cs, Alpe Drug Co, Conte Biancomano, Genoa
CALCINED—21 cs, 1 ton, 9 cwt, 7 lbs, McKesson & Robbins, Franconia, Liverpool
CARBONATE—24 cs, 17 cwt, 2 qtrs, 8 lbs, Schofield-Donald Co, Franconia, Liverpool
CHLORIDE—148 dms, Composition Material Co, Berlin, Bremen
368 dms, 110,105 lbs, H J Baker & Bro, Vancouver, Hamburg
MAGNESITE, CALCINED—100 cks, 50,000 lbs, Speiden, Whitfield & Co, Volendam, Rotterdam
110 bbls, 55,000 lbs, Innis, Speiden & Co, Volendam, Rotterdam
MANGANESE ORE—500 bgs, Exoleon Co, Porto Rico, Ponce
OXIDE—50 cs, 7,862 lbs, A Klipstein & Co, Vancouver, Hamburg
MEDICINAL PREPARATIONS—15 cs, E Fougera & Co, Paris, Havre
MENTHOL CRYSTALS — 20 cs, Brdiges, Neumer & Co, Kako, Kobe
23 cs, Standard Bank of South Africa, Kobe
MOLASSES—827,472 gls, American Molasses Co, Amolco, Nuevitas
MONOMETHYLPARA - AMIDOPHENOL SULPHATE—2 cs, F Rudloff, Westphalia, Hamburg
MOTYL—3 dms, 1,720 lbs, Kuttroff, Pickhardt & Co, Ambridge, Rotterdam
NUTMEG—75 bgs, E L Prior & Co, Lancastria, London
266 bgs, Dodge & Olcott Co, Saleier, Priok
320 bgs, Standard Bank of South Africa, Saleier, Priok
5 bgs, Barclay Bank, Matura, Grenada
55 bgs, Royal Bank of Canada, Matura, Grenada
OCHER, POWDERED—110 cks, C K Williams & Co, Patria, Marseilles
844 cks, Reichard-Coulston, Inc, Patria, Marseilles
44 cks, Hummel & Robison, Patria, Marseilles
40 cks, Wishnick & Tumpeer, Inc, Patria, Marseilles
60 cks, J H Furman & Co, Patria, Marseilles
225 cks, Scott L. Libby Corpn, Patria, Marseilles
70 cks, C K Williams & Co, Patria, Marseilles
120 cks, Scott L Libby Corpn, Patria, Marseilles
OIL CAKE, CODLIVER—2,386 bgs, Quaker Oats Co, Ranenfjord, Bergen
OIL, ALMOND—20 cs, Fritzsche Bros, Patria, Marseilles
15 cs, Alpe Drug Co, Conte Biancamano, Genoa
BAY—10 cs, G Preston, Cornelia, Arroyo
10 cs, Geo Lueders & Co, Cornelia, Arroyo
10 cs, D S Beasley & Co, Porto Rico, Arroyo
CAMPHOR—1 dm, 646 lbs, Geo Lueders & Co, Westphalia, Hamburg
CANANGA—2 dms, P R Dreyer, Saleier, Batavia
CASTOR—15 cs, Alps Drug Co, Conte Biancamano, Genoa
CHINAWOOD—277 dms, L C Gillespie & Sons, President Garfield, Shanghai
150 dms, W R Grace & Co, President Garfield, Hongkong
300 dms, L C Gillespie & Sons, Kako, Hongkong
200 dms, L C Gillespie & Sons, Kako, Hankow
200 dms, Arnhold & Co, Kako, Hankow
273 dms, K Mertig, Kako, Hankow
150 dms, National Bank of Brooklyn, Kako, Shanghai
499 dms, L C Gillespie & Sons, Brooklyn, Shanghai
CITRONELLA—6 dms, 6,000 lbs, Volkart Bros, City of Durban, Colombo
6 dms, 12,000 lbs, G T German, City of Shanghai, Colombo
6 dms, 6,000 lbs, Volkart Bros, Mahseer, Colombo
COCONUT—624 tons, Ned Ind Escompto My, Saleier, Sourabaya
COD—250 cks, 12,500 gls, National Oil Products Co, Silvia, St John's
CODLIVER—11 bbls, 330 gls, Lanman & Kemp, Ranenfjord, Bergen
100 bbls, 3,000 gls, Eli Lilly & Co, Ranenfjord, Bergen
25 bbls, 750 gls, Asia Drug Co, Ranenfjord, Bergen
150 bbls, 4,500 gls, Hans Hinrichs Chem Corpn, Ranenfjord, Bergen
100 bbls, 3,000 gls, Stanley Jordan & Co, Ranenfjord, Bergen
200 bbls, 6,000 gls, Kidder, Peabody & Co, Vancouver, Hamburg
COPAIBA—95 cs, 6,897 lbs, Ungerer & Co, Sheridan, Manaos
78 cs, consignee to follow, Sheridan, Para
ESSENTIAL—16 cs, G Silver Import Co, Mauretania, Southampton
3 cs, Lo Curto & Funk, Mauretania, Southampton
1 cs, American Express Co, Mauretania, Southampton
2 cs, G Silver Import Co, Berengaria, Southampton
2 cs, J Thorpe, Inc, Berengaria, Southampton
9 cs, Wangler, Budd Co, Volendam, Rotterdam
14 cs, Geo Lueders & Co, Westphalia, Hamburg
5 cs, Orbis Product Trading Co, President Garfield, Marseilles
39 cs, A Bourjois & Co, Paris, Havre
1 cs, G Clark, Paris, Havre
2 cs, Collins & Co, Paris, Havre
62 cs, Coty, Inc, Paris, Havre
2 cs, Orbis Products Trading Co, Paris, Havre
24 pkgs, Pinauds, Inc, Paris, Havre
10 cs, Lo Curto & Funk, Paris, Havre
12 pkgs, G Delawanna, Paris, Havre
4 cs, P R Dreyer, Paris, Havre
17 cs, Ungerer & Co, Paris, Havre
2 cs, F C Gerlach, Paris, Havre
57 pkgs, Houbigant, Inc, Paris, Havre
15 cs, Maurice Levy, Paris, Havre
2 cs, Geo Silver Import Co, Paris, Havre
2 cs, Morana, Inc, Paris, Havre
4 cs, Veolay, Inc, Paris, Havre
6 cs, G J Wallan, Paris, Havre
30 pkgs, L T Piver, Inc, Paris, Havre
32 pkgs, Cheramy, Inc, Paris, Havre
8 cs, Guerlain, Inc, Paris, Havre
14 cs, Brown Bros, Paris, Havre
5 cs, Dodge & Olcott Co, Paris, Havre
1 bbl, A Chiris & Co, Patria, Grasse
12 cs, A Chiris & Co, Patria, Grasse
12 cs, Fritzsche Bros, Patria, Grasse
2 cks, Fritzsche Bros, Patria, Grasse
20 cs, Lo Curto & Funk, Patria, Grasse
20 cs, Yardley & Co, Patria, Marseilles
5 cs, E Lelong, Patria, Marseilles
47 cs, Fritzsche Bros, Berlin, Bremen
1 dm, Ungerer & Co, Blue Triangle, Malaga
OIL, ESSENTIAL—15 cks, Magnus, Mabee & Raynard, Pipestone County, Bordeaux
EUCALYPTUS—15 cs, Magnus, Mabee & Raynard, Canadian Leader, Melbourne
12 dms, W T Rawleigh Co, Canadian Leader, Melbourne
7 dms, consignee to follow, Canadian Leader, Melbourne
LIME—1 dm, Merck & Co, Santa Teresa, Cristobal
9 half cs, Planters Prod Co, Matura, Dominica
LUBRICATING—50 bbls, Capt Nadrowski, Reliance, Hamburg
MUSTARD—10 cs, 1,177 lbs, Heine & Co, Deutschland, Hamburg
OLIVE—25 dms, Madison State Bank, Blue Triangle, Seville
100 dms, Equitable Trust Co, Blue Triangle, Seville
60 dms, Lockwood-Brackett Co, Blue Triangle, Seville
60 dms, Bank of Athens & Trust Co, Blue Triangle, Malaga
50 dms, Interstate Trust Co, Blue Triangle, Malaga
50 dms, Banca Com'l Italian Trust Co, Blue Triangle, Malaga
25 dms, Manufacturers' Trust Co, Blue Triangle, Malaga
74 dms, Bank of America, Blue Triangle, Malaga
200 cs, 2,000 gls, Bank of America, Conte Biancamano, Genoa
110 cs, 1,100 gls, J Solari & Co, Conte Biancamano, Genoa
125 cs, 1,250 gls, C B Richard & Co, Cabo Santa Maria, Seville
202 cs, 2,020 gls, B Spiliadis & Co, Cabo Santa Maria, Seville
50 cs, 500 gls, G Cuccia & Sons, Cabo Santa Maria, Seville
25 dms, Lekas & Drivas, Cabo Santa Maria, Seville
165 dms, E R Squibb & Sons, Cabo Santa Maria, Seville
350 cs, 3,500 gls, Madison State Bank, Cabo Santa Maria, Seville
150 cs, 1,500 gls, Bank of America, Cabo Santa Maria, Seville
100 cs, 1,000 gls, Banco di Sicilia Trust Co, Cabo Santa Maria, Seville
200 cs, 2,000 gls, Lekas & Drivas, Cabo Santa Maria, Seville
50 dms, Lekas & Drivas, Cabo Santa Maria, Seville
15 dms, Guaranty Trust Co, Cabo Santa Maria, Seville
770 pkgs, American Exchange-Irving Trust Co, Cabo Santa Maria, Seville
550 cs, 5,500 gls, Bank of America, Cabo Santa Maria, Seville
50 cs, 500 gls, Aurora Importing Co, Cabo Santa Maria, Seville
100 cs, 1,000 gls, Nassau Bank of Brooklyn, Cabo Santa Maria, Seville
100 cs, 1,000 gls, Bank of America, Colombo, Genoa
50 cs, 500 gls, Banco di Roma, Colombo, Genoa
99 cs, 990 gls, General Transport Co, Saturnia, Naples
50 cs, 500 gls, Banca Com'l Italian Trust Co, President Garfield, Genoa
30 cs, 300 gls, Schroeder Bros, President Garfield, Genoa
125 cs, 1,250 gls, Pizzo & Laraya, President Garfield, Genoa
315 cs, 3,150 gls, First National Bank, President Garfield, Genoa
200 cs, 2,000 gls, Latorraca Bros, President Garfield, Genoa
150 cs, 1,500 gls, Thos Pipetone, Inc, President Garfield, Genoa
200 cs, 2,000 gls, Bank of United States, President Garfield, Genoa
50 cs, 500 gls, R Romano & Son, President Garfield, Genoa
123 cs, 1,250 gls, J Petrocelli & Co, President Garfield, Genoa
100 cs, 1,000 gls, Alfonso Germano & Son, President Garfield, Genoa
40 cs, 400 gls, Guido Fusco, President Garfield, Genoa
25 cs, 250 gls, Falcon Packing Co, President Garfield, Genoa
225 cs, 2,250 gls, Scaramelli & Co, Inc, President Garfield, Genoa
75 cs, 750 gls, F Romeo & Co, President Garfield, Genoa
200 cs, 2,000 gls, Cellas, Inc, President Garfield, Genoa
350 cs, 3,500 gls, P Pastene & Co, President Garfield, Genoa
25 bbls, 1,250 gls, Fidelity Trust Co, President Garfield, Genoa
50 cs, 500 gls, Bertini Bros, President Garfield, Genoa
552 cs, 5,520 gls, Bank of America, President Garfield, Genoa
32 cs, 320 gls, Neve Drug Stores, President Garfield, Marseilles
100 cs, 1,000 gls, Garneau & De Bruyn, Inc, President Garfield, Marseilles
100 cs, 1,000 gls, Nicelle Olive Oil Co, Patria, Nice
66 dms, American Express Co, Patria, Nice
OPOPONAX—1 cs, Thomas & Pierson American Merchant, London
PALM—76 cks, D Bacon, Cedric, Liverpool
200 bbls, Stein, Hall & Co, Saleier, Belawan Deli
146 dms, Guthrie & Co, Saleier, Belawan Deli
310 dms, Van Leenaven, Boomkamp & Co, Saleier, Belawan Deli
1,056,198 kilos, 2,323,635 lbs, The Niger Co, Cathlamet, Matadi
1,215 dms, African & Eastern Trading Co, Cathlamet, Port Harcourt
298 cks, The Niger Co, Cathlamet, Abonnema
48 cks, The Niger Co, Cathlamet, Burutu
1,907 cks, African & Eastern Trading Corpn, Otho, Calabar
160 cks, The Niger Co, Otho, Abonnema
31 cks, G B Ollivant & Co, Otho, Abonnema
PEANUT—5 bbls, Lamont, Corliss & Co, Volendam, Rotterdam
363 tons, J Bibby & Son, Cedric, Liverpool
PINENEEDLE—60 dms, 2,989 lbs, White Sea & Baltic Co, Vancouver, Hamburg
PINE RESIDUE—20 cks, 9,616 lbs, Blackman-Hageman Corpn, Ambridge, Rotterdam
RAPESEED—350 dms, Mitsui & Co, Kako, Osaka
SANDALWOOD—3 cs, 726 lbs, Riedel & Co, Inc, Westphalia, Hamburg
SEAL—75 cks, Bowring & Co, Silvia, St John's
SOYA BEAN—2 cks, Corn Products Refining Co, Deutschland, Hamburg
SULPHUR — 400,000 kilos, 880,000 lbs, Central Union Trust Co, Blue Triangle, Seville
125,000 kilos, 275,000 lbs, Leghorn Trading Co, Blue Triangle, Seville
196 bbls, 9,800 gls, Leghorn Trading Co, Blue Triangle, Valencia
200 dms, H W Peabody & Co, Sinaia, Piraeus
VEGETABLE—6 dms, 6,056 lbs, Geo Lueders & Co, Cabo Santa Marta, Seville
YLANG YLANG—4 cs, Coupey Fils, President Garfield, Marseilles
7 cs, J Manheimer, President Garfield, Marseilles
OPIUM—15 cs, Merck & Co, Saturnia, Trieste
5 cs, New York Quinine & Chem Works, Saturnia, Trieste
10 cs, New York Quinine & Chem Works, Volendam, Rotterdam
PAPAIN—14 cs, A Joensson & Co, Inc, City of Durban, Colombo
PAPRIKA—100 bgs, Intercocean Forwarding Co, Blue Triangle, Alicante
PEPPER, BLACK—1,200 bgs, Banca Coml Italiana Trust Co, Lancastria, London
660 bgs, E L Prior & Co, Mahseer, Colombo
250 bgs, A Joensson & Co, Inc, Saleier, Telok Betong
250 bgs, Guaranty Trust Co, Saleier, Telok Betong
250 bgs, Equitable Trust Co, Saleier, Telok, Betong
250 bgs, National City Bank, Saleier, Telok Betong
1,250 bgs, Standard Bank South Africa, Saleier, Telok, Betong
2,635 bgs, H P Winter & Co, Saleier, Telok Betong
380 bgs, H P Winter & Co, American Merchant, London
PERFUMERY, ARTIF—20 cs, Chase National Bank, Suevier, Antwerp
PETROLEUM, CRUDE—100,000 bbls, 4,200,000 gls, Standard Oil Co, Vistula, Mamomal
72,993 bbls, 3,064,446 gls, Pan-American Petroleum Corpn, J A Danziger, Aruba
117,947 bbls, 4,953,774 gls, Tidewater Oil Co, Tameahaw, Las Piedras
91,919 bbls, 3,822,798 gls, Tidewater Oil Co, W F Humphrey, Las Piedras
65,000 bbls, 2,730,000 gls, Gulf Refg Co, Oina, Las Piedras
85,000 bbls, 3,570,000 gls, Standard Oil Co, Beacon Street, Mamomal
68,500 bbls, 150,700 gls, Gulf Refg Co, Gulfqueen, Las Piedras
PHOSPHORUS, RED—50 cs, 7,253 lbs, Bradley & Baker, West Eldara, Antwerp
PLASTER—2,300 tons, Atlantic Gypsum Co, Pluto, Chaticamp
5,800 tons, United States Gypsum Co, Gypsum Prince, Windsor
2,240 tons, Newark Plaster Co, Anders, Hillsborough
5,800 tons, United States Gypsum Co, Gypsum King, Windsor
5,800 tons, United States Gypsum Co, Gypsum King, Windsor
POTASH BROMIDE—3 cs, 624 lbs, Lo Curto & Funk, Westphalia, Hamburg
CARBONATE—48 cks, 46,516 lbs, A Klipstein Co, Ambridge, Rotterdam
30 cks, 24,369 lbs, Parsons & Petit, Deutschland, Hamburg
33 cks, 24,563 lbs, A Klipstein & Co, Vancouver, Hamburg
25 cs, 5,005 lbs, T C Wygandt, Reliance, Hamburg
CAUSTIC—350 dms, 64,534 lbs, A Klipstein & Co, Vancouver, Hamburg
CHLORATE—3,000 cks, 382,800 lbs, Uniform Chem Prod, Inc, Vancouver, Hamburg
MURIATE—36,327 kilos, 799,194 lbs, N V Potash Export My, Westphalia, Hamburg
1,000 bgs, N V Potash Export My, Westphalia, Hamburg
1,475,000 kilos, 3,245,000 lbs, N V Potash Export My, Vancouver, Hamburg
NITRATE — 127 cks, 61,188 lbs, Kuttroff, Pickhardt & Co, Deutschland, Hamburg
300 bgs, 66,528 lbs, Davies Nitrate Co, Inc, Vancouver, Hamburg
29 cks, 17,012 lbs, Davies Nitrate Co, Inc, Vancouver, Hamburg
PRUSSIATE RED—100 cks, 12,203 lbs, American Cyanimid Co, Vancouver, Hamburg
SULPHATE—250 bgs, 50,237 lbs, N V Potash Export My, Westphalia, Hamburg
5,250 bgs, N V Potash Export My, Westphalia, Hamburg
6,000 bgs, N V Potash Export My, Vancouver, Hamburg
QUININE SULPHATE—3 cs, R W Greef & Co, Volendam, Rotterdam
30 cs, Hosken & Co, Kako, Yokohama
RESIN, PINE—100 bbls, 33,000 lbs, M Gruenhut, Reliance, Hamburg
ROOT, GENTIAN — 34 bls, King & Howe, Patria, Marseilles
GINGER—36 bgs, J Caruana, Maravi, Kingston
MEDICINAL—4 bls, 1,133 lbs, King & Howe, Westphalia, Hamburg
10 bgs, 1,117 lbs, S B Penick & Co, Inc, Westphalia, Hamburg
5 bls, R Hilliers Son Co, Saturnia, Trieste
100 bgs, 11,000 lbs, S B Penick & Co, Deutschland, Hamburg
35 bgs, 6,437 lbs, R Hilliers Son Co, Deutschland, Hamburg
3 bgs, Rohmer, Gehrig & Co, Inc, West Eldara, Antwerp
5 bls, 2,376 lbs, Wm Benkert & Co, Inc, Vancouver, Hamburg
12 bls, 2,232 lbs, Eli Lilly & Co, Vancouver, Hamburg
10 bgs, 1,100 lbs Eli Lilly & Co, Vancouver, Hamburg
5 bgs, 1,100 lbs, Eli Lilly & Co, Vancouver, Hamburg
3 bls, 1,177 lbs, R Hilliers Son Co, Vancouver, Hamburg
SARSAPARILLA—4 bls, International Overseas Corpn, Cholutaca, Puerto Cortes
ROSE WATER—50 pkgs, Magnus, Mabee & Raynard, Patria, Marseilles
ROSIN—105 cks, 94,985 lbs, Murphy Varnish Co, Pipestone County, Bordeaux
SEED, CARAWAY—100 bgs, 11,000 lbs, R L Friedler, Volendam, Rotterdam
500 bgs, 55,000 lbs, Catz American Co, Volendam, Rotterdam
400 bgs, 44,000 lbs, C M V Sillevoldt, Volendam, Rotterdam
CARDAMOM—3 cs, Lo Curto & Funk, Minnetonka, London
MEDICINAL—4 bgs, 556 lbs, King & Howe, Westphalia, Hamburg
20 bgs, R Hillier's Son Co, Saturnia, Trieste
20 bgs, 1,865 lbs, King & Howe, Deutschland, Hamburg
21 bgs, 2,200 lbs, R Hillier's Son Co, Vancouver, Hamburg
MUSTARD—150 bgs, E M De Vries, Minnetonka, London
150 bgs, I Harrison & Whitney, Volendam, Rotterdam
150 bgs, I H E C of N Y, Volendam, Rotterdam
600 bgs, National City Bank, Deutschland, Hamburg
POPPY—200 bgs, 22,000 lbs, C M V Sillevoldt, Volendam, Rotterdam
100 bgs, 11,000 lbs, T Grob & Co, Volendam, Rotterdam
RAPE—150 bgs, A G Dunn, Volendam, Rotterdam
150 bgs, F H Von Damm, Volendam, Rotterdam
50 bgs, Whitney-Eckstein Seed Co, Vancouver, Hamburg
SUNFLOWER—600 bgs, A G Dunn, Volendam, Rotterdam
SHELLAC—150 bgs, H W Peabody & Co, City of Durban, Calcutta
750 bgs, Ralli Bros, City of Durban, Calcutta
1,240 bgs, Ralli Bros, City of Shanghai, Calcutta
100 bgs, 16,400 lbs, H V F Price, Inc, City of Shanghai, Calcutta
100 bgs, 16,400 lbs, Montrose Corp, Mahseer, Calcutta
200 bgs, Wm Zinsser & Co, Mahseer, Calcutta

Current Prices are now printed in connection with the Market Reports. See index, page 2.

THE PSYCHOLOGICAL EFFECT OF ODORS

Who has not felt the joy of living being reborn in his bosom when first surrounded by the great northern pine forests? Your lungs open to their fullest, welcoming the bracing, scented air of nature's great out-of-doors.

The psychological effect of odors is so great that industrial manufacturers can capitalize this to secure greater distribution for their merchandise.

Who can say how many times the sales of a product may be increased if it be divorced from its unpleasant odor. The pleasantly smelling commodity will have an added sales appeal.

There lies a huge field ahead in the deodorizing of products of industry, and the latent demand will be turned into a conscious one by those makers of such as paints, dyestuffs, glues, paper, polishes and petroleum products who are pioneers in this new field. Those who recognize this tremendous psychological force and deodorize their products will receive their just reward.

Consider your product, and its odor, then communicate with us.

Manufacturers of odors and deodorants

TRADE GIVAUDAN SYNTHETICS DELAWANNA MARK

GIVAUDAN-DELAWANNA, Inc.

101 FIFTH AVENUE, NEW YORK CITY

SHELLAC—250 bgs, H W Peabody & Co, Mahseer, Calcutta
100 bgs, 16,400 lbs, A R Haenser & Co, Mahseer, Calcutta
400 bgs, consignee to follow, Mahseer, Calcutta
23 cs, A Hurst & Co, Volendam, Rotterdam
50 cs, E Everett Carleton, Volendam, Rotterdam
80 bgs, A Hurst & Co, Volendam, Rotterdam
BUTTON LAC—25 bgs, Rogers-Pyatt Shellac Co, City of Shanghai, Calcutta
GARNET LAC—135 bgs, H W Peabody & Co, City of Durban, Calcutta
150 bgs, H W Peabody & Co, City of Shanghai, Calcutta
60 bgs, Ralli Bros, City of Shanghai, Calcutta
SEEDLAC—350 bgs, Rogers-Pyatt Shellac Co, City of Shanghai, Calcutta
1,342 bgs, Ralli Bros, City of Shanghai, Calcutta
810 bgs, Rogers-Pyatt Shellac Co, Mahseer
100 bgs, Bank of America, Mahseer, Calcutta
900 bgs, Montrose Corp, Mahseer, Calcutta
700 bgs, H W Peabody & Co, Mahseer, Calcutta
50 bgs, E E Androvette, Mahseer, Calcutta
100 bgs, consignee to follow, Mahseer, Calcutta
STICKLAC—250 bgs, E E Androvette, Mahseer, Calcutta
70 bgs, F B Ross & Co, President Garfield, Singapore
SOAP, CASTILE—100 cs, F O De Luze, President Garfield, Marseilles
600 cs, J P Smith & Co, Patria, Marseilles
250 cs, Barcelona Prod Co, Blue Triangle, Seville
SODA, CYANIDE—892 cs, Charles Hardy, Inc, Paris, Havre
NITRATE—3,534 bgs, Anglo-Chilean Nitrate Sales Corp, Santa Teresa, Talcahuano
671 bgs, W R Grace & Co, Santa Teresa, Talcahuano
27,000 bgs, Anglo-Chilean Nitrate Sales Corp, Eir, Talcahuano
PHOSPHATE—209 cks, 123,351 lbs, Roessler & Hasslacher Chem Co, Ambridge, Rotterdam
250 bgs, Hans Hinrichs Chem Corp, Volendam, Rotterdam
703 cks, 242,277 lbs, Roessler & Hasslacher Chem Co, West Eldara, Antwerp
PHOSPHATE DIBASIC—1,000 cks, Rhodia Chem Corp, Volendam, Rotterdam
PRUSSIATE YELLOW—10 cs, Eugen Dietzen Co, Inc, Volendam, Rotterdam
15 cks, A Klipstein & Co, Volendam, Rotterdam
SILICO FLUORIDE—134 cks, 46,873 lbs, H Sundheimer, Inc, Ambridge, Rotterdam
SULPHATE—200 cks, 94,160 lbs, Kuttroff, Pickhardt & Co, Ambridge, Rotterdam
SULPHITE—50 dms, R F Downing & Co, New York City, Bristol
URANATE YELLOW—107 bbls, Belgo-American Trading Corp, Suevier, Antwerp
SPONGES—1 bl, American Sponge & Chamois Co, Saturnia, Trieste
259 bls, 25,900 lbs, J H Rhodes & Co, Orizaba, Havana
STARCH, POTATO—500 bgs, 11,500 lbs, Stein, Hall & Co, Volendam, Rotterdam
25 bgs, 5,750 lbs, Bernham, Inc, Volendam, Rotterdam
TALC—600 bgs, 132,000 lbs, Hammill & Gillespie, Pipestone County, Bordeaux
500 bgs, 110,000 lbs, Whittaker, Clark & Daniels, Pipestone County, Bordeaux
500 bgs, 110,000 lbs, L A Salomon & Bro, Pipestone County, Bordeaux
1,000 bgs, 220,000 lbs, C B Chrystal Co, Inc, Pipestone County, Bordeaux
800 bgs, 176,000 lbs, Coty, Inc, Conte Biancamano, Genoa
TAMASOL—1 pkg, 19 lbs, Kuttroff, Pickhardt & Ambridge, Rotterdam
TAPIOCA, FLOUR—4,150 bgs, Stein, Hall & Co, Saleier, Sourabaya
275 bgs, Catz American Co, Saleier, Batavia
SEED—375 bgs, Stein, Hall & Co, Saleier, Sourabaya
TARTAR, CRUDE—430 bgs, Harshaw, Fuller & Goodwin, Patria, Marseilles
179 bgs, Tartar Chem Works, Patria, Lisbon
418 bgs, Charles Pfizer & Co, Patria, Lisbon
477 bgs, Charles Pfizer & Co, Patria, Marseilles
711 bgs, Tartar Chem Works, Patria, Marseilles
211 bgs, Charles Pfizer & Co, Blue Triangle, Alicante
160 bgs, Charles Pfizer & Co, Blue Triangle, Valencia
781 bgs, Tartar Chem Works, Blue Triangle, Alicante
184 bgs, Tartar Chem Works, Laura C, Naples
TERPENEOL—4 dms, 2,809 lbs, Geo Luecders & Co, Westphalia, Hamburg
TERPINYL ACETATE—1 dm, Geo Luecders & Co, Westphalia, Hamburg
THEOBROMINE—5 cs, Maywood Chem Works, Volendam, Rotterdam
5 bbls, Maywood Chem Works, Volendam, Rotterdam
UREA—140 bgs, 20,020 lbs, Synthetic Nitrogen Prod Co, Ambridge, Rotterdam
VARNISH—60 bbls, Terodo & Asbestos, Kerhonkson, Manchester
21 bbls, Yaponika Distributing Co, Arabic, Antwerp
WAX, BEES—73 bgs, Will & Baumer, Santa Teresa, Talcahnano
19 bgs, W Garretson, Camaguey, Tampico
27 bgs, C W Jacob & Allison, Camaguey, Tampico
22 bgs, Hensel, Bruckman & Lorbacher, Camaguey, Tampico
261 bgs, Consignee to follow, Camaguey, Tampico
92 bls, Strahl & Pitsch, Volendam, Rotterdam
40 bgs, Ricart & Co, San Lorenzo, St Domingo
10 bgs, National Bank of Com, President Garfield, Alexandria
34 bgs, D Steengrafe, Orizaba, Havana
44 bgs, National Bank of Com, Vancouver, Hamburg
2 cs, National Bank of Com, Vancouver, Hamburg
83 bgs, Fidelity Trust Co, Vancouver, Hamburg
19 bgs, National Bank of Com, Vancouver, Hamburg
4 bgs, Strahl & Pitsch, Sinaia, Constantinople
5 bgs, D Steengrafe, Porto Rico, Ponce
CARNAUBA—56 bgs, 11,334 lbs, Bank of London South America, Sheridan, Ceara
MONTAN—1,350 bgs, 207,900 lbs, Strohmeyer & Arpe Co, Westphalia, Hamburg
150 bgs, 33,528 lbs, Smith & Nichols, Deutschland, Hamburg
OZOKERITE—85 bgs, Strohmeyer & Arpe Co, Saturnia, Trieste
42 bgs, Smith & Nichols, Laura C, Saturnia, Trieste
WHITING—500 bgs, National City Bank, Arabic, Antwerp
2,800 bgs, National City Bank, Arabic, Antwerp
WHITING—406 bgs, Harriman Natl Bank of Deutschland, Hamburg
500 bgs, National City Bank, West Eldara, Antwerp
500 bgs, Stanley Doggett, Inc, West Eldara, Antwerp
1,000 bgs, 110,000 lbs, Coupey Fils, Pipestone County, Dunkirk
500 bgs, 55,000 lbs, C B Chrystal Co, Inc, Pipestone County, Dunkirk
WOOD FLOUR—1,000 bgs, 110,000 lbs, The Burnett Co, Ambridge, Rotterdam
400 bgs, Corn Exchange Bank, Ranenfjord, Osla
ZINC, CHLORIDE—21 bbls, A Klipstein & Co, Suevier, Antwerp
OXIDE—160 bbls, Philipp Bros, Inc, Arabic, Antwerp
70 cs, Yaponika Distributing Co, Arabic, Antwerp
25 cks African Metal Corp, Volendam, Rotterdam
100 bbls, A Klipstein & Co, Patria, Hamburg
50 bbls, Reichard, Coulston, Inc, Patria, Hamburg
RESINATE—10 cks, Red Hand Composition Co, Minnetonka, London
ZYKLON—507 cs, 72,655 lbs, Roessler & Hasslacher Chem Co, Vancouver, Hamburg

Imports at New York in Transit

ACID TARTARIC—42 bbls, New York and Cuba Mail S S Co, Conte Biancamano, Genoa, Cuba
BEANS, COCOA—50 bgs, Amazone, Maracaibo, Trieste
BRONZE POWDER—5 cs, A C Rempert & Co, Stuttgart, Bremen, Chicago
7 cs, A C Rempert & Co, Berlin, Bremen, Chicago
CHEMICALS—34 bbls, 10,887 lbs, Vancouver, Hamburg, St Louis
CINNAMON QUILLS — 100 bls, 10,000 lbs, City of Durban, Colombo, Havana
135 bls, 15,500 lbs, City of Durban, Colombo, Vera Cruz
COCHINEAL—12 bgs, 1,680 lbs, Santa Teresa, Callao, Liverpool
COCONUT—29 bgs, 2,900 lbs, Maravi, Kingston, Liverpool
GELATIN—82 cs, Eastman Kodak Co, Volendam, Rotterdam, Rochester
GLASS, PLATE—25 cs, Semon Bache & Co, Arabic, Antwerp, Chicago
GUM, GUAIAC—6 bgs, San Lorenzo, St Domingo, London
LOGWOOD EXTRACT—70 cks, Maravi, Kingston, Antwerp
102 cks, Maravi, Kingston, Glasgow
MAGNESIA OXIDE—60 cks, 8,859 lbs, Vancouver, Hamburg, St Louis
MENTHOL CRYSTAL—20 cs, Mallinckrodt Chem Works, Kako, Osaka, Montreal
OIL, CHINAWOOD—56 tons, Werner G Smith Co, Kako, Hankow, Cleveland
462 tons, Central Natl Bank, Kako, Hankow, Cleveland
CODLIVER—220 bbls, 6,600 gls, P R Dreyer, Ranenfjord, Bergen, Chicago
110 bbls, 3,300 gls, P R Dreyer, Ranenfjord, Bergen, Cincinnati
OLIVE—300 cs, 3,000 gls, J Heinz & Co, Cabo Santa Maria, Seville, Leamington
2,000 cs, 20,000 gls, J Heinz & Co, Cabo Santa Maria, Seville, Pittsburgh
25 cs, 250 gls, Cabo Santa Maria, Seville, Montreal
325 cs, 3,250 gls, Cabo Santa Maria, Seville, Chicago
85 cs, 850 gls, President Garfield, Marseilles, Chicago
50 dms, Blue Triangle, Malaga, Chicago
50 cs, 500 gls, Blue Triangle, Malaga, Chicago
PAPAIN—08 cs, Carter Cummings & Co, City of Durban, Colombo, Buffalo
100 cs, Carter Cummings & Co, City of Shanghai, Colombo, Buffalo
2 cs, American Ferment Co, City of Shanghai, Colombo, Buffalo
PIMENTO—150 bgs, 21,000 lbs, Royal Bank of Canada, Maravi, Kingston, Cincinnati
50 bgs, Santa Marta, Kingston, Trieste
POTASH CHLORATE—400 bbls, 49,966 lbs, E Suter & Co, West Eldara, Antwerp, Vera Cruz
ROOT, GINGER—172 bgs, Maravi, Kingston, London
SPONGES—8 bls, 800 lbs, Orizaba, Havana, Barcelona
TAPIOCA, PEARL—265 bgs, H P Winter & Co, Saleier, Batavia, Hamilton
SEED—100 bgs, H P Winter & Co, Saleier, Batavia, Hamilton
WAX, BEES—44 bgs, A Klipstein & Co, Camaguey, Tampico, Genoa
40 cs, American Express Co, Volendam, Rotterdam, Chicago

Imports at Baltimore

AMMONIA NITRATE—176 cks, W Greeff & Co, Maine, Menstad
AMMONIAC, SAL—20 cks, 12,450 lbs, Kuttroff Pickhardt & Co, Ambridge, Rotterdam
CHEMICALS—300 bgs, 66,860 lbs, Cottman & Co, Hagen, Hamburg
1,000 bgs, 222,220 lbs, Roessler & Hasslacher Chemical Co, Ambridge, Rotterdam
256 cks, 200,639 lbs, Roessler & Hasslacher Chemical Co, Hagen, Hamburg
136 cks, Innis Speiden & Co, Westfalen, Hamburg
CHROME ORE—1,110 tons, Chrome Co, Ltd, Steel Trader, Noumea
CLAY, BURNED—225 bgs, 462,700 lbs, Baltimore & Ohio Railroad, Sarcoxie, Havre
CHINA—2,274 tons, Moore & Mungee, Trespool, Fowey
175 tons, Hamil & Gillespie, Inc, Trespool, Fowey
1,877.64 tons, English China Clay Sales Corp, Trespool, Fowey
RAW—450 bgs, 45,540 lbs, Baltimore & Ohio Railroad, Sarcoxie, Havre
DYES—1 cs, Herman Michaelsen, Westfalen, Bremen
EXTRACT, LOGWOOD—296 cs, J S Young Co, Takaoka, Kobe
FLUORSPAR—1,122,000 lbs, Bethlehem Steel Corp, Westfalen, Bremen
GREASE, WOOL—300 bbls, Kidder-Peabody Acceptance Corp, Westfalen, Bremen
IRON ORE—9,000 tons, Bethlehem Steel Corp, Berwindmoor, Daiquiri
1,685,200 lbs, Bank of America, Ambridge, Rotterdam
LIME GLYCEROPHOSPHATE—20 cs, 3,520 lbs, Sharp & Dohme, Sarcoxie, Havre
MANGANESE ORE—3,000 tons, Bethlehem Steel Corp, Homaker, Melbourne
NAPHTHA, CRUDE—308 bgs, 44,678 lbs, Hagen, Hamburg
OIL, LUBRICATING—10 dms, 4,410 lbs, Samuel Shapiro & Co, Hagen, Hamburg
PETROLEUM, CRUDE—63,000 bbls, Mexican Petroleum Corp, C A Canfield, Tampico
80,000 bbls, Standard Oil Co, Malacca, Mammonai
POTASH—25 cks, Baltimore & Ohio Railroad, Westfalen, Bremen
SALTPETER—204 cks, 121,176 lbs, Kuttroff Pickhardt & Co, Ambridge, Rotterdam.
SEED, CARAWAY—200 bgs, McCormick & Co, Waldijk, Rotterdam
RAPE—50 bgs, Waldijk, Rotterdam
100 bgs, 22,330 lbs, William G Scarlett & Co, Ambridge, Rotterdam
SILICOMANGANESE—126 bbls, 55,955 lbs, C Hardy, Sarcoxie, Havre
SODA NITRATE—513 bgs, Kuttroff Pickhardt & Co, Maine, Menstad
305 cks, 183,425 lbs, Kuttroff Pickhardt & Co, Hagen, Hamburg
102 bbls, 281,486 lbs, Kuttroff Pickhardt & Co, Hagen, Hamburg
UREA—908 bgs, 199,760 lbs, Cottman Co, Ambridge, Rotterdam

Imports at Boston

BARIUM CHLORIDE—35 cks, 32,509 lbs, Saco, Antwerp
BONE MEAL—500 bgs, Darian, Liverpool
500 bgs, Newfoundland, Liverpool
BONES—1,826 bgs, 184,450 lbs, Sardinian Prince, Buenos Aires
5,671 bgs, 503,001 lbs, Commack, Buenos Aires
CASEIN—800 bgs, First National Bank, Binnendijk, Rotterdam
534 bgs, 114,727 lbs, Kalbfleisch Corpn, Commack, Buenos Aires
200 bgs, First National Bank, Maryland, London
250 bgs, Maryland, London
GROUND—834 bgs, 110,318 lbs, Brown Bros, Sardinian Prince, Buenos Aires
1,417 bgs, 187,435 lbs, First National Bank, Sardinian Prince, Buenos Aires
417 bgs, 55,159 lbs, First National Bank, Commack, Buenos Aires
834 bgs, 110,318 lbs, Brown Bros, Commack, Buenos Aires
417 bgs, 55,159 lbs, Chemical National Bank, Commack, Buenos Aires
CELLULOSE ACETATE—6 cs, Maryland, London
CHALK—460 bgs, 50,706 lbs, Stanley Doggett Co, Saco, Antwerp
300 tons, Maryland, London
CHEMICALS—10 bbls, 2,447 lbs, Stanley Doggett Co, Saco, Antwerp
25 cks, Innis, Speiden Co, Binnendijk, Rotterdam
COCOA BUTTER—30 cs, Stephen L Bartlett Co, Binnendijk, Rotterdam
COCONUT, DESIC—100 pkgs, City of Durban, Colombo
100 cs, Balfour, Williamson Co, Helenus, Manila
550 cs, Balfour, Williamson Co, Dardanus, Manila
100 cs, Dardanus, Colombo
COLOR, ANILIN—1 ck, Dyestuffs Corpn of America, Darian, Liverpool
DEXTRIN—150 bgs, Binnendijk, Rotterdam
DRUGGISTS' SUNDRIES—5 cs, Maryland, London
EARTH, FULLER'S—100 bgs, L A Salomon & Bro, Maryland, London
EMERY—50 kgs, American Glue Co, Maryland, London
STONE—1,200 tons, bulk, Old Colony Trust Co, Misty Law, Kulluk
EXTRACT, QUEBRACHO—520 lbs, 57,342 lbs, Tannin Corpn, Commack, Buenos Aires
FERTILIZER—152 bgs, Collins Seed Service Co, Maryland, London
FISH MEAL—395 bgs, H Dale & Co, Yarmouth, Yarmouth
21 bgs, Newfoundland, Halifax
FLOWERS, INSECT—8 bbls, Laura C, Gruz
FLUORSPAR—551,900 lbs, bulk, American Exchange-Irving Trust Co, Pipestone County, Havre
GLASS—1 cs, Davies, Turner Co, Maryland, London
BLACK—1 cs, Semon, Bache Co, Binnendijk, Rotterdam
PLATE—10 cs, 23,942 lbs, Wheeler Meserve Glass Co, Saco, Antwerp
6 cs, L Salomon & Son, Binnendijk, Rotterdam
SHEET—170 cs, 15,454 lbs, D C Andrews Co, Saco, Antwerp
WINDOW—3,738 cs, 279,830 lbs, Second National Bank, Saco, Antwerp
GLUE, BONE, GRD—300 bgs, Binnendijk, Rotterdam
GLUESTOCK—800 bgs, 91,359 lbs, Saco, Antwerp
51 bls, 50,190 lbs, Alfred Strauss, Commack, Buenos Aires
FISH BONES AND SKINS—48 bgs, Russia Cement Co, Prince George, Yarmouth
81 bgs, 3 bbls, Russia Cement Co, Prince George, Yarmouth
41 bgs, Russia Cement Co, Yarmouth, Yarmouth
FISH HEADS—5 bbls, J Nagle, Yarmouth, Yarmouth
FISH SCRAP—2 bbls, J P Field, Yarmouth, Yarmouth
4 bgs, 1 bbl, F C Pearce Co, Prince George, Yarmouth
1 bbl, J P Field, Yarmouth, Yarmouth
1 bbl, E A Malone, Yarmouth, Yarmouth
1 bbl, J Nagle, Yarmouth, Yarmouth
1 bx, H F Hammond, Newfoundland, Halifax
FISH SKINS—7 bgs, Rogers Isinglass & Glue Co, Yarmouth, Yarmouth
HIDE CUTTINGS—510 bgs, Baring Bros, Darian, Manchester
275 bgs, Baring Bros, Darian, Liverpool
77 bgs, Train, Smith Co, Darian, Liverpool
GREASE, WOOL—25 bbls, 11,274 lbs, J S Bent Co, Saco, Antwerp
GUM, COPAL—70 bgs, Haywood, Wakefield Co, Helenus, Singapore
IRON ORE—10,030 tons, Mystic Iron Works, Suderoy, Wabana
OXIDE—10 cks, V G Thomas Co, Darian, Liverpool
LITHOPONE—25 cks, 15,157 lbs, African Metals Corpn, Saco, Antwerp
MAGNESITE—100 bbls, Brown Bros, Binnendijk, Rotterdam
NUTGALLS—368 bgs, 20 tons, 8 cwt, 3 qrs, 24 lbs, Dardanus, Hankow
OIL, COD—100 dms, Salem Oil & Grease Co, Havana Maru, Kobe
18 cks, Marden Wild Corpn, Farnorth, Halifax
62 cks, S Harris Export Co, Farnorth, Halifax
100 cks, F W Damon, Newfoundland, St Johns
COD, POULTRY—10 bbls, Wm O Ellis, Newfoundland, St Johns
CODLIVER—365 bbls, A W Dodd Co, Newfoundland, St Johns
50 bbls, Charles L Huisking, Binnendijk, Rotterdam
CODLIVER, POULTRY—10 bbls, Charles L Huisking, Binnendijk, Rotterdam
PALM—368 cks, 641,030 lbs, Niger Co, Cathlamet, Abonnema
560 cks, 938,980 lbs, Niger Co, Cathlamet, Burutu
639 cks, 509 tons, Niger Co, Otho, Abonnema
RAPESEED—50 dms, Mitsui Co, Havana, Kobe
OSSEIN—1,250 bgs, 112,701 lbs, Whitten Co, Saco, Antwerp
304 bgs, 27,535 lbs, Union Glue & Gelatine Co, Saco, Antwerp
PEPPER, BLACK—256 bgs, 34,293 lbs, H P Winter Co, Saleier, Telok Betong
PERFUMERY—5 cs, S S Pierce Co, Binnendijk, Rotterdam
1 cs, American Express Co, Maryland, London
PETROLEUM, CRUDE—63,127 bbls, Pan American Petroleum Corpn, Edward L Doheny, Aruba
70,064 bbls, Pan American Petroleum Corpn, Paul H Harwood, Aruba
PITCH—10 bbls, Darian, Liverpool
POTASH, MURIATE—5,500 bgs, Potash Export My, Binnendijk, Rotterdam
SAGE—60 bls, Laura C, Grus
SAGO, RED—10 bgs, National Importing Co, Talisman, Gothenburg
SEED, CARAWAY—100 bgs, Downe, Hunnewell Co, Binnendijk, Rotterdam
100 bgs, Equitable Trust Co, Binnendijk, Rotterdam
SHELLAC, SEEDLAC—100 bls, City of Durban, Calcutta
SOAP—32 cs, S S Pierce Co, Binnendijk, Rotterdam
SADDLE—1 ck, London Harness Co, Maryland, London
SODA, BISULPHIDE—15 dms, 6,415 lbs, Kuttroff, Pickhardt Co, Saco, Antwerp
55 dms, 23,038 lbs, Irving M Sobin Co, Saco, Antwerp
PRUSSIATE—9 cks, A Klipstein Co, Binnendijk, Rotterdam
SILICATE—50 cks, Norton Co, Darian, Liverpool
SULPHIDE—26 dms, Kuttroff, Pickhardt Co, Binnendijk, Rotterdam
STARCH, POTATO—500 bgs, Binnendijk, Rotterdam
TALC—400 bgs, 88,184 lbs, L A Salomon & Bros, Pipestone County, Bordeaux
TAPIOCA FLOUR—253 bgs, 56,124 lbs, First National Bank, Saleier, Tjelatjap
TARTAR, CRUDE—90 bgs, 23,192 lbs, Brown Bros, Pipestone County, Bordeaux
TRAGASOL—125 bbls, J P Marston, Darian, Liverpool
UMBER—20 cks, Reichard Coulston, Darian, Manchester
WATER, MINERAL—50 cs, S S Pierce Co, Maryland, London
WHITING—2,000 bgs, 220,460 lbs, A Klipstein Co, Saco, Antwerp
1,500 bgs, 165,345 lbs, T D Downing Co, Saco, Antwerp

Imports at Boston in Transit

ALBUMEN, EGG—11 cs, Tatt & Scott, Havana, Tientsin, for Montreal
OIL, CODLIVER—500 pkgs, Quaker Oats Co, Newfoundland, St Johns, for Cedar Rapids
SIKA—164 cks, American Abrasive Co, Talisman, Hurum, for Westfield, Mass

Imports at Fall River

BENZIN, REFINED—32,000 bbls, 1,344,000 gls, Asiatic Petroleum Co, El Oso, Curacao

Imports at Gloucester

OIL, COD—40 bbls, A W Dodd & Co, Bambi, Freeport

Imports at Houston

AMMONIAC, SAL—25 cks, Youngstown, Rotterdam
CHEMICALS—169 dms, Youngstown, Antwerp
SEED, POPPY, BLUE—50 bgs, Youngstown, Rotterdam
RAPE—237 bgs, Youngstown, Rotterdam
TALC—500 bgs, Monginevro, Genoa

Imports at Los Angeles

ACID—51 cks, 42,400 lbs, American Cyanamid Co, Lochgoil, Berlin
ALUM, POTASH—50 bbls, Brunswig Drug Co, Hermion, Antwerp
BONE MEAL—200 bgs, 22 tons, W R McLeod Co, Emil Kirdorf, Paris
536 bgs, 50 tons, W R McLeod Co, Nichtheroy, Cologne
911 bgs, 41 tons, George W Fuhr, Notre Dame de Fourviere, Strasbourg
500 bgs, 28 tons, Inland Fertilizer Co, Notre Dame de Fourviere, Strasbourg
CASSIA—105 bgs, 11,172 lbs, Joannes Corp, Lochgoil, Amsterdam
CHALK—200 sx, 44,800 lbs, L H Butcher & Co, Hermion, Brussels
GROUND—999 bgs, 50 tons, Reardon Co, Hermion, Brussels
400 bgs, Wilbur Ellis Co, Hermion, Brussels
GINGER—244 crts, 34,000 lbs, Isuam Corp, Madison, Manila
GUM, COPAL—50 sx, 11,200 lbs, S L Jones Co, President Madison, Singapore
50 sx, 11,200 lbs, J W Peabody, President Madison, Singapore
OIL, COCONUT—490 tons, L A Soap Co, Golden Hind, Manila
488 tons, L A Soap Co, Golden Dragon, Manila
HERRING—84,652 gls, Wilbur Ellis Co, Canadian Farmer, Vancouver
79,924 gls, Wilbur Ellis Co, Canadian Rover, Vancouver
OILCAKE, FISH—766 bgs, Wilbur Ellis Co, Canadian Farmer, Vancouver
472 bgs, Wilbur Ellis Co, Canadian Coaster, Vancouver
OILMEAL, MANIOC—65,140 lbs, Balfour, Guthrie Co, Silveroak, Sourabaya
SHELLAC—25 sx, 4,100 lbs, L H Butcher & Co, President Madison, Calcutta
SODA SULPHIDE—25 dms, 11,025 lbs, Roessler & Hasslacher Chemical Co, Lochgoil, Frankfort

Imports at Mobile

ASPHALT, CRUDE—17,465 bgs, Briarpark, Puerto Tarafa
COCONUTS—160 bgs, Lyseford, Belize
FERTILIZER—7,191 tons, Oxelosund, Antwerp
QUEBRACHO, WOOD—12,580 pcs, Nordlys Castle, Santa Fe

Imports at New Orleans

ANTIMONY ORE—719 bgs, Lewis Metals Corp, Mineola, Antofogasta
324 bgs, Duncan Fox & Co, Mineola, Antofogasta
260 bgs, Lewis Metals Corp, Lorraine Corp, Montivideo
OXIDE—362 bgs, Watson Caach & Co, Mineola, Antofogasta
BAUXITE ORE—2,342 tons, Republic Mining & Mfg Co, H C Flood, Georgetown
2,737 tons, Republic Mining & Mfg Co, Frederiksborg, Paramaribo
BLEACHING POWER—75 cs, B Ramelli, Inc, Belgian, Liverpool
BONE FLOUR—500 bgs, N England, Syros, Antwerp
BLOOD, DRIED—2,965 bgs, Lorraine Cross, Buenos Aires
CREOSOTE—1,600 tons, Bermuth Lembke Co, San Silvestre, Manchester
COCONUTS—292,745, Fruit Dispatch Co, Sosua, Puerto Castilla
6,000, Cuyamel, Fruit Co Nicarao, Puerto Cortez
30,450, Standard Fruit & Steamship Co, Granada, Ceiba
77,000, Standard Fruit & Steamship Co, Gatun, Ceiba
EARTH, FULLER'S—800 bgs, F K Higbie Supply Co, Eglantine, Hull
400 bgs, F K Higbie Supply Co, West Wauna, London
500 bgs, L A Saloman Supply Co, West Wauna, London

Current Prices are now printed in connection with the Market Reports. See index, page 2.

PENT-ACETATE IS A GUIDE TO SAFE LACQUER FORMULATION

The lacquer industry has arrived at a turning point in its future possibilities. Lacquers have been phenomenally successful and have enjoyed an extensive use. But recently an element of doubt and dissatisfaction has crept into the public mind. Why?

Demand for cheap lacquers has resulted in cheap formulation by many manufacturers. And cheap formulation has in turn resulted in lowered quality. The final result has evidenced itself in lacquers that are difficult to apply—that fail to show good gloss and leveling—lacquers that blush and show orange peel effect.

* * * *

PENT-ACETATE (pure amyl-acetate) has proven itself—in America's finest lacquer plants—to be a sure guide to safe lacquer formulation. Lacquers properly formulated with PENT-ACETATE invariably stand the most exacting demands of both manufacturer and user.

The SHARPLES SOLVENTS *Corp.*
2302 WESTMORELAND ST., PHILADELPHIA
548A RAILWAY EXCHANGE BLDG., CHICAGO
501B FIFTH AVENUE, NEW YORK

FERROMANGANESE—100 tons, F Samuel & Co, Eglantine, Hull
125 tons, C W Leavitt & Co, Eglantine, Hull
325 tons, Brown Bros, Eglantine, Hull
100 tons, West Wauna, Hull
GLASS, WINDOW—165 cs, Syros, Antwerp
4 cs, Pittsburg Plate Glass Co, Eglantine, London
MOLASSES—222,040 gls, Dunbar Moll Co, Kishacoquillas, Matanzas
1,200,000 gls, Cuba Distilling Co, Nelson, Jucaro
OIL, COCONUT—723 tons, Palm Olive Peet Co, Ethan, Manila
PETROLEUM, CRUDE—87,366 bbls, Pan American Petroleum Corp, Cerro Ebano, Aruba
31,000 bbls, Sinclair Refining Co, W. L. Connelly, Port Arthur
36,000 bbls, Harry Farnum, Tampico
74,824 bbls, Pan American Petroleum Corp, William Green, Aruba
55,075 bbls, Pan American Petroleum Corp, Mantilla, Aruba
SOAP—3 cs, W J Oberle Co, Eglantine, London
SODA, CAUSTIC—345 dms, Southern Pacific Railroad Co, Belgian, Liverpool
NITRATE—295 bgs, Kuttroff Pickhardt & Co, Tortugas, Torsberg
6,135 bgs, W R Grace & Co, Mineola, Iquiqui
8,073 bgs, W R Grace & Co, Mineola, Antofogasta
21,583 bgs, Anglo Chilean Nitrate Sales Corp, Mineola, Tocopilla
TANKAGE—1,990 bgs, Armour & Co, Lorraine Cross, Montevideo
1,987 bgs, Armour & Co, Lorraine Cross, Buenos Aires
1,932 bgs, Lorraine Cross, Buenos Aires

Imports at Norfolk

BASIC SLAG—550 bgs, 49 tons, Eastern Dawn, Antwerp
FERTILIZER, FUR WASTE—77 bbls, Norwegian, London
LEATHER SCRAP—230 tons, New York Trust Co, Havelland, Hamburg
53 tons, 1,663 bgs, Eastern Dawn, Rotterdam
1 lot, New York Trust Co, Turpin, Bremen
GLASS, PLATE—41 cs, French American Banking Corp, Eastern Dawn, Antwerp
WINDOW—10 cs, Manufacturers Trust Co of New York, Havelland, Hamburg
GLAUBER'S SALT—25 cks, Turpin, Bremen
POTASH, KAINIT, 12.4%—1,340 tons, bulk, N V Potash Export My, Tordefjoid, Nordenham
MANURE SALT, 20%—1,780 tons, bulk, N V Potash Export My, Tordefjoid, Nordenham
MURIATE, 80-85%—898 tons, bulk, N V Potash Export My, Tordefjoid, Nordenham
5,000 bgs, 450 tons, N V Potash Export My, Tordefjoid, Nordenham
8,000 bgs, 720 tons, N V Potash Export My, Jacob Maersk, Barcelona
SODA NITRATE—1,066 tons, E I du Pont de Nemours & Co, Tilthorn, Tocopilla

Imports at Philadelphia

AMMONIA—20 cks, Anaconda, Rotterdam
CHALK—1,900 bgs, Saco, Antwerp
CHEMICALS—20 cks, Roessler & Hasslacher Chemical Co, Anaconda, Rotterdam
67 dms, Anaconda, Rotterdam
CLAY—35 cks, Anaconda, Rotterdam
CORK—21 bls, Serenitas, Palamos
BOARD—3,240 bls, Serenitas, Palamos
DISCS—10 bls, Serenitas, Palamos
SHAVINGS—50 pkgs, Serenitas, Palamos
WASTE—11,706 bls, Pennsylvania Trading Co, Serenitas, San Felin de Guixo
3,240 lbs, Pennsylvania Trading Co, Serenitas, Palamos
1,066 pkgs, Serenitas, Palamos
FERTILIZER, NITROGENOUS—500 bgs, Anaconda, Rotterdam
GLASS, WINDOW—6 cs, Saco, Antwerp
HERBS—6 cs, Wm J Jones & Co, Cabo Espartel, Leghorn
IRON ORE, CRUDE—2,393,600 lbs, Bank of America, Anaconda, Rotterdam
469 bbls, C K Williams Co, Cabo Espartel, Malaga
140 bbls, E M F Waldo, Cabo Espartel, Malaga
50 bbls, J H Nichols & Co, Cabo Espartel, Malaga
MOLASSES—1,379,000 gls, Eastern Alcohol Corp, Athelbeach, Port Tarafa
129,225 gls, Eastern Alcohol Corp, Athelbeach, Havana
OIL, HAARLEM—5 bbls, H R Lathrop & Co, Anaconda, Rotterdam
PETROLEUM, CRUDE—47,546 bbls, in bulk, Atlantic Refining Co, Elo Lobo, La Libertad
65,000 bbls, in bulk, Gulf Refining Co, British General, Las Piedras
PYRITES—7,500 tons, Pyrites Co, Kaleniba, Huelva
SALTPETER—250 bgs, Anaconda, Rotterdam
127 cks, Anaconda, Rotterdam
SODA CYANIDE—300 dms, Manchester Hero, Manchester
SILICOFLUORIDE—250 bgs, Corn Exchange National Bank, Anaconda, Rotterdam
ZINC OXIDE—50 bbls, Phillip Bros, Inc, Saco, Antwerp
WHITE—50 bbls, Brown Bros & Co, Saco, Antwerp

Imports at San Francisco

ACID, CRESYLIC—25 dms, Australien, Hamburg
ALUM, POTASH, LUMP—31 cks, Saale, Antwerp
AMMONIA NITRATE—198 cks, Theodore Roosevelt, Brevik
BEANS, COCOA—2,400 bgs, West Notus, Bahia
21 bgs, Burns-Philp Co of S F Co, Sonoma, Pago Pago
55 bgs, BuVal Moore & Co, Sonoma, Pago Pago
BONE FLOCR—704 bgs, Nictheroy, Rotterdam
MEAL—1,000 bgs, Balfour, Guthrie & Co, Hermion, Antwerp
1,000 bgs, Wilson & Geo Meyer & Co, Hermion, Antwerp
CASSIA—7 bls, Taiyo, Hongkong.
500 bls, Keller & Christian, Inc, Bellingham, Hongkong
CHEMICALS—1 cs, Saale, Hamburg
50 cks, Saale, Bremen
20 cks, Roessler & Hasslacher Co, Nictheroy,
150 bgs, Paul Uhlich, Nictheroy, Rotterdam
2 cs, Australien, Hamburg
25 dms, Australien, Hamburg
CINNAMON QUILLS—60 bls, Otis, McAllister & Co, Bellingham, Hongkong
25 bls, W R Grace & Co, Bellingham, Hongkong
COCONUT, DESIC—743 cs, Philippine Desiccated Coconut Corp, Bellingham, Zamboanga
COPRA—300 long tons, El Dorado Oil Works, Bellingham, Manila
600.4 long tons, El Dorado Oil Works, Bellingham, Sagayan
145.45 long tons, El Dorado Oil Works, Bellingham, Zamboanga
837.040 long tons, El Dorado Oil Works,
1,412.524 long tons, Vegetable Oil Corp, Golden Hind, Hondagua
175 long tons, El Dorado Oil Works, Golden Hind, Cebu
7,649 piculs, El Dorado Oil Works, Renalder, Singapore
3,032 bgs, Burns-Philp Co of S F Inc, Sonoma, Sydney
2,392 bgs, Atkins, Kroll & Co, Sonoma, Pago Pago
636 long tons, Vegetable Oil Corp, Washington, Ternate
545.836 long tons, Vegetable Oil Corp, Washington, Gorontalo
1 lot in bulk, Vegetable Oil Corp, Washington, Davao
EPSOM SALT—203 bgs, Saale, Bremen
FERROMANGANESE—950 tons, Prest-O-Lite Co, Inc, Australien, Sauda
GLASS, PLATE—2 cs, Tyre Bros Glass Co, Pacific Enterprise, Manchester
1 cs, French American Banking Corp, Nictheroy, Rotterdam
WINDOW—815 cs, Texas, Antwerp
44 cs, Pacific Enterprise, Manchester
73 cs, Farmers Loan & Trust Co of N Y, Pacific Enterprise, Manchester
662 cs, Hermion, Antwerp
999 cs, Theodore Roosevelt, Antwerp
6,137 cs, Notre Dame de Fourviere, Antwerp
GREASE, WOOL—210 bbls, Pacific Enterprise, Manchester
GUM, CORAL—68 bgs, Texas, Antwerp
IRON OXIDE—24 cks, Joseph A McNulty, Pacific Enterprise, Manchester
LEAD ACETATE—10 cks, Saale, Hamburg
OIL, CHINAWOOD—750 dms, Taiyo, Hongkong
300 tons, McKesson & Robbins, Inc, Tatsuno, Hankow
652.9 tons, Werner G Smith Co, Kentucky, Shanghai
CODLIVER—110 bbls, Theodore Roosevelt, Oslo
150 bbls, Theodore Roosevelt, Antwerp
60 bbls, Saale, Hamburg
EUCALYPTUS—5 dms, Sonoma, Sydney
RAPESEED—100 dms, Taiyo, Kobe
OILCAKE, FISH—100 bgs, Balfour, Guthrie & Co, Canadian Farmer, Vancouver
OILMEAL, CODLIVER—600 bgs, Saale, Hamburg
FISH—3,801 bgs, Hoyt, Shepston & Sciaroni, Canadian Rover, Ecoole
7,401 bgs, California Packing Corp, Canadian Rover, Hecate
8,839 bgs, Wilbur-Ellis Co, Canadian Rover, Hecate
910 bgs, Wilbur-Ellis Co, Canadian Rover, Caledonia
1,400 bgs, Wilbur-Ellis Co, Canadian Rover, Kildenan
5,642 bgs, Wilbur-Ellis Co, Canadian Rover, San Mateo
1,580 bgs, Wilbur-Ellis Co, Canadian Rover, Toqualt
1,788 bgs, Wilbur-Ellis Co, Canadian Rover Cachalot
768 bgs, Wilbur-Ellis Co, Canadian Farmer, Queen's Cove
4,250 bgs, Wilbur-Ellis Co, Canadian Farmer, East Creek
2,650 bgs, Wilbur-Ellis Co, Canadian Farmer, Markdale
4,640 bgs, Wilbur-Ellis Co, Canadian Farmer, Ceepeecee
340 bgs, Wilbur-Ellis Co, Rochelle, Yahoo Bay
1,818 bgs, James Farrell Co, Rochelle, Yahoo Bay
1,829 bgs, Balfour, Guthrie & Co, Rochelle, Espinoza
3,520 bgs, Hoyt, Shepston & Sciaroni, Rochelle, McBride Bay
3,637 bgs, Wilbur-Ellis Co, Rochelle, Nottka
PEPPER, WHITE—100 bgs, H M Newhall & Co, Taiyo, Singapore
QUEBRACHO EXTRACT—536 bgs, The Tannin Corp, West Notus, Buenos Aires
SEED, CANARY—165 bgs, West Notus, Buenos Aires
CARAWAY—100 bgs, Nictheroy, Rotterdam
CORIANDER—100 bgs, Texas, Bordeaux
SHELLAC—50 bgs, Bellingham, Hongkong
SOAP—2 cs, The White House, Texas, Havre
6 cks, American Express Co, Texas, Havre
1 cs, Theodore Roosevelt, Antwerp
30 cs, The Ring Corp, Theodore Roosevelt, Antwerp
LIQUID—2 dms, Saale, Hamburg
TAR, WOOD—20 cks, Bradley & Ekstrom, Canada, Gothenburg
WHITING, BOLTED—90 bbls, East Asiatic Co, Inc, Australien, Hamburg
40 bgs, East Asiatic Co, Inc, Australien, Hamburg
2,018 bgs, Hermion, Antwerp

Imports at Seattle

BRISTLES—72 cs, F Cone, President Pierce, Shanghai
23 cs, M Crocks, President Pierce, Shanghai
17 cs, J Munroe, President Pierce, Shanghai
5 cs, F Cohn, President Pierce, Kobe
BRUSHES—7 cs, 840 lbs, N Y Merchandise Co, Florida, Kobe
3 cs, 360 lbs, S Kress Co, Florida, Kobe
11 cs, 360 lbs, W Bush Co, Arizona, Kobe
1 cs, 120 lbs (St Louis), Arizona, Kobe
20 cs, 2,400 lbs, United Drug Co, President Pierce, Kobe
6 cs, 720 lbs, L Liggett, President Pierce, Shanghai
6 cs, 720 lbs, N Y Merchandise Co, President Pierce, Shanghai
5 cs, 600 lbs, W Byrnes, President Pierce, Kobe
8 cs, 960 lbs, Owens Brush Co, President Pierce, Kobe
35 cs, 4,200 lbs, G Thomsen, President Pierce, Kobe
CHALK—100 bgs, Texas, Antwerp
CHEMICALS—410 cs (San Francisco) Emil Kirdoft, Hamburg
COCONUT, DESIC—300 cs, G & Pratt, President Pierce, Manila
720 cs, President Pierce, Manila
450 cs, B Williamson, President Pierce, Manila
FERTILIZER—454 bgs, Saale, Bremen
LIME—15 dms, W & Meyer, Emil Kirdoft, Hamburg
MENTHOL—15 cs, Bingham Co, President Pierce, Shanghai
30 cs, A Cailler, President Pierce, Shanghai
OIL—100 bbls, Saale, Hamburg
CHINAWOOD—300 tons, President Pierce, Hongkong
A quantity, J Steeb, President Pierce, Shanghai
POTASH—900 bgs, W & Meyer, Emil Kirdoft, Hamburg
WATER, MINERAL—50 cs, Emil Kirdoft, Antwerp

Shipments Between Domestic Ports

Baton Rouge Domestic Shipments

KEROSENE—50,000 bbls, Republic Mining & Mfg Co, Baltimore

Galveston Domestic Shipments

EARTH—1,000 bgs, El Alba, New York
2,200 bgs, El Occidente, New York
OIL, LUBRICATING—75 dms, El Occidente, New York
PETROLEUM, CRUDE—118,000 bbls, W C Teagle, New York
ROSIN—75 dms, El Alba, New York
WAX—1 lot in sx, El Occidente, New York

Houston Domestic Shipments

DISTILLATE—70,000 bbls, Caddo, Charleston
GASOLENE—91,000 bbls, W H Libby, Wilmington
50,000 bbls, E W Sinclair, Jacksonville
GREASE, LUBRICATING—475 cs, W W Sinclair, Jacksonville
LARD SUBSTITUTE—155 tres, Julia Luckenbach, San Francisco
67 trcs, Julia Luckenbach, Seattle
OIL, COTTONSEED—55 dms, Julia Luckenbach, Los Angeles
75 dms, Julia Luckenbach, San Francisco
35 dms, Julia Luckenbach, Portland
GAS—31,000 bbls, W J Hanna, New York
53,000 bbls, Princeton, Houston
LUBRICATING—1,570 bbls, E W Sinclair, Jacksonville
PETROLEUM, CRUDE—77,000 bbls, Thomas H Wheeler, New York
78,000 bbls, Samuel G Brown, New York

Los Angeles Domestic Shipments

GASOLINE—79,626 bbls, La Brea, Oleum
21,480 bbls, Kekoskee, Oakland
31,277 bbls, Solitaire, Seattle
70,820 bbls, Emidio, Seattle
23,277 bbls, Richfield, Portland
77,756 bbls, Helen Olmsted, Philadelphia
98,781 bbls, Sunoil, Philadelphia
9,834 bbls, S & C Barge No 2, San Diego
7,101 bbls, Lebec, Seattle
KEROSENE—2,966 bbls, Solitaire, Seattle
239 bbls, Lebec, Seattle
79,333 bbls, Atlas, New York
OIL, DIESEL—5,778 bbls, Emma H Coppage, Oakland
FUEL—63,795 bbls, Lebec, Seattle
32,480 bbls, El Segundo, Astoria
54,725 bbls, Kanawha, Bremerton
65,350 bbls, J C Fitzsimmons, Point Wells
46,415 bbls, Capt A F Lucas, Portland
GAS—4,070 bbls, S & C Barge No 41, San Diego
PETROLEUM, CRUDE—208,000 bbls, H M Storey, Richmond
74,655 bbls, District of Columbia, Richmond
78,050 bbls, Los Angeles, Martinez
74,141 bbls, Tulsagas, Avon
SPIRITS, WHITE—16,322 bbls, Sunoil, Philadelphia

New Orleans Domestic Shipments

ASPHALT—300 bgs, Momus, New York
CREOSOTE—350,000 gls, San Silvestre, Gulfport
DRUGS—51 tons, San Salvador, San Francisco
GREASE—175 cs, Oscar D. Bennett, Boston
MOLASSES—12 tons, Abron, Los Angeles
OIL, FUEL—42,000 bbls, Norman Bridge, Galveston
GAS—50,000 bbls, Oscar D Bennett, Boston
LINSEED—20 tons, Abron, San Francisco
LUBRICATING—30 dms, Norman Bridge, Galveston
275 dms, Oscar D. Bennett, Boston
PAINT—300 cs, Oscar D. Bennett, Boston
PETROLEUM COMPOUND—23 tons, San Salvador, Los Angeles
SALT—4,000 sx, Mornus, New York
SOAP—10 tons, San Salvador, Oakland
183 bbls, Momus, New York
POWDER—20 tons, Abron, San Francisco
TURPENTINE—80 dms, Momus, New York
WAX—24 tons, San Salvador, San Francisco
61 tons, San Salvador, Los Angeles

Recent Exports from U. S. Ports

Exports from New York

ACETONE—5,112 lbs, Antonio Lepoz, Barcelona
ACID, ACETIC—300 lbs, Silverguava, Manila
ACETIC, GLACIAL—992 lbs, Oranje Nassau, La Guaira
CHROMIC—425 lbs, Silverguava, Kobe
CITRIC—376 lbs, Oranje Nassau, Puerto Cabello
CRESYLIC—2,086 lbs, Teno, Corocoro
HYDROFLUORIC—1,820 lbs, Japanese Prince, Shanghai
MURIATIC—1,852 lbs, Oranje Nassau, La Guaira
NITRIC—860 lbs, Silverguava, Manila
STEARIC—11,312 lbs, Silverguava, Yokohama
SULPHURIC—113,200 lbs, Santa Maria, Talara
1,534 lbs, Corozal, Santo Domingo
58,275 lbs, Bacchus, Curacao
ALBUMEN, EGG—800 lbs, Thuringia, Hamburg
ALCOHOL—4,400 gls, Japanese Prince, Kobe
ALUMINUM POWDER—3,082 lbs, Royal Prince, Kobe
AMMONIA, ANHYDROUS—3,047 lbs, Matura, Port of Spain
3,915 lbs, Macabi, Puerto Colombia
PHOSPHATE—505,125 lbs, Kepwickhall, Tunis
223,909 lbs, Edenton, Manila
SULPHATE—528,000 lbs, Royal Prince, Hongkong
ASPHALT—68,142 lbs, Artigas, Manchester
139,578 lbs, Balsam, Manchester
34,461 lbs, Ile de France, Havre
41,394 lbs, American Trader, London
38,810 lbs, Royal Prince, Yokohama
30,825 lbs, Chepstow Castle, Lourenco Marques
9,264 lbs, Chepstow Castle, Capetown
15,840 lbs, Silverguava, Osaka
86,500 lbs, Marengo, Newcastle
21,705 lbs, Toba, Tokyo
349,662 lbs, Toba, Yokohama
173,684 lbs, Cabo Torres, Seville
41,518 lbs, Port Albany, Sydney
28,067 lbs, Hinnoy, Palamos
21,429 lbs, Aaroe, La Guayra
117,815 lbs, Hoxie, Belfast
61,624 lbs, Cabo Torres, Bilbao
386,026 lbs, Lisbon, Yokohama
56,186 lbs, Bankdale, Palamos
18,570 lbs, Adriatic, Liverpool
11,018 lbs, Japanese Prince, Dairen
CORE—131,851 lbs, Adriatic, Liverpool
LIQUID—47,499 lbs, Adriatic, Liverpool
SOLID—68,783 lbs, Hamburg, Hamburg
12,275 lbs, Adriatic, Liverpool
BARK, ELM—4,476 lbs, American Merchant, London
SIMARUBA—701 lbs, Hamburg, Hamburg
WITCH HAZEL—2,816 lbs, Hinnoy, Marseilles
BEANS, COCOA—31,210 lbs, Suffern, Havre
142,240 lbs, Volendam, Rotterdam
118,150 lbs, Nieuw Amsterdam, Amsterdam
338,544 lbs, Nieuw Amsterdam, Rotterdam
113,401 lbs, Veendam, Amsterdam
222,400 lbs, Hamburg, Hamburg
281,575 lbs, Japanese Prince, Yokohama
BLACK, CARBON—2,500 lbs, Veendam, Rotterdam
BLEACHING COMPOUND—15,110 lbs, Nerissa, Halifax
POWDER—2,420 lbs, St Mary, Santiago
BLUE, ULTRAMARINE—618 lbs, Oranje Nassau, Carupano
VITRIOL—35,705 lbs, Santa Maria, Bolivia
CALCIUM ARSENATE—12,532 lbs, Teno, Paita
2,130 lbs, San Lorenzo, San Juan
CARBIDE—2,130 lbs, San Lorenzo, San Juan
12,500 lbs, Oranje Nassau, Campano
21,200 lbs, Guatemala, Acajutla
43,750 lbs, Bacchus, La Guaira
137,800 lbs, Bacchus, Pastelillio
CARBON BISULPHIDE—3,521 lbs, Bacchus, La Guaira
CASEIN—1,638 lbs, Pennland, Antwerp
CASSIA—1,086 lbs, Oranje Nassau, Pampatar
CLAY—63,869 lbs, Nieuw Amsterdam, Amsterdam
COLOR, DRY—4,777 lbs, Lisbon, Kobe
EARTH—2,200 lbs, Corozol, Puerto Plata
2,739 lbs, Orange Nassau, Port Prince
CORNFLOUR—22,100 lbs, Glendoyle, Pastelillio
5,650 lbs, Laconia, Liverpool
1,985 lbs, Teno, Callao
3,618 lbs, Nerissa, St Johns
46,970 lbs, St Mary, Cienfuegos
2,412 lbs, Royal Prince, Shanghai
52,160 lbs, Caronia, London
14,200 lbs, Silverguava, Yokohama
3,618 lbs, Japanese Prince, Manila
CYANAMIDE—44,700 lbs, Guatemala, Mazatlan
DEXTRIN, CORN—3,521 lbs, Toba, Osaka
28,400 lbs, Artigas, Manchester
14,935 lbs, American Trader, London
11,280 lbs, Royal Prince, Shanghai
14,150 lbs, Arabic, Antwerp
DYES—2,580 lbs, Balsam, Manchester
1,372,367 lbs, Silverguava, Shanghai
86,292 lbs, Silverguava, Kobe
11,450 lbs, Silverguava, Yokohama
59,818 lbs, Royal Prince, Shanghai
32,275 lbs, Royal Prince, Kobe
14,764 lbs, Western World, Buenos Aires
ERGOT—181 lbs, Hinnoy, Lisbon
EXTRACT, TANNING—2,687 lbs, Bankdale, Marseilles
10,394 lbs, San Juan, Mayaguez
5,175 lbs, Corsican Prince, Buenos Aires
WITCH HAZEL—1,905 lbs, Carmania, London
FORMALDEHYDE—41,013 lbs, Meranke, Belawan
26,159 lbs, Meranke, Batavia
GASOLINE—840 gls, Luna, Jacmel
1,000 gls, New Colombia, Calabar
5,000 gls, New Colombia, Sierra Leone
2,000 gls, New Colombia, Ada
20,000 gls, New Colombia, Lagos
2,750 gls, New Colombia, Apapa
408,192 gls, Merope, Rouen
15,000 gls, Aaroe, La Guayra
5,000 gls, Aaroe, Puerto Cabello
30,000 gls, Edentor, Hongkong
GINGER—14,400 lbs, Carmania, London
GLASS, WINDOW—3,350 lbs, Toba, Osaka
GLAUBER'S SALT—1,754 lbs, Orange Nassau, La Guaira
GLUCOSE—18,991 lbs, Balsam, Manchester
18,575 lbs, Artigas, Manchester
SOLID—27,192 lbs, Merauke, Cheribon
GLUE—2,210 lbs, Orizabs, Havana
GLYCERIN—1,412 lbs, Port Albany, Sydney
GRAPHITE—2,296 lbs, Lisbon, Kobe
1,811 lbs, Port Albany, Melbourne Wharf
GREASE, ANIMAL—310,629 lbs, Volendam, Rotterdam
1,964 lbs, Marengo, Hull
POWDERED—2,802 lbs, Carmania, London
5,501 lbs, Marengo, Newcastle
25,852 lbs, Resolute, Hamburg
95,649 lbs, Nieuw Amsterdam, Rotterdam
354,956 lbs, Veendam, Rotterdam
AXLE—1,490 lbs, St Mary, Santiago
15,600 lbs, Santa Maria, Talcahuano
CUP—4,682 lbs, Jadden, Adelaide
LUBRICATING—72,081 lbs, Royal Prince, Yokohama
56,124 lbs, Royal Prince, Kobe
18,217 lbs, Royal Prince, Shanghai
7,100 lbs, Chepstow Castle, Capetown
27,362 lbs, Chepstow Castle, Lourenco Marques
4,050 lbs, Chepstow Castle, Beira
6,969 lbs, Oranje Nassau, La Guaira
30,304 lbs, Silverguava, Yokohama
63,731 lbs, Silverguava, Osaka
4,500 lbs, Toba, Yokohama
34,228 lbs, Toba, Kobe
8,370 lbs, Toba, Chinampoo
45,211 lbs, Toba, Chemulpo
25,951 lbs, Toba, Osaka
4,260 lbs, Roma, Genoa
4,250 lbs, Alesia, Galati
1,700 lbs, Alesia, Cluz
1,700 lbs, Alesia, Sibin
8,500 lbs, Alesia, Bucarest
4,022 lbs, Pt Albany, Fremantle
12,520 lbs, Pt Albany, Sydney
6,075 lbs, Pt Albany, Melbourne
98,751 lbs, Thuringia, Hamburg
49,519 lbs, Hinnoy, Marseilles
2,421 lbs, Kepwickhall, Algiers
2,428 lbs, Kepwickhall, Tunis
56,153 lbs, City of Alton, Rotterdam
57,317 lbs, Ambridge, Rotterdam
1,810 lbs, New Colombia, Grand Bassam
2,164 lbs, New Colombia, Accra
21,735 lbs, Marengo, Hull
1,795 lbs, Hamburg, Berlin
238,738 lbs, Hamburg, Hamburg
1,218 lbs, La Bourdonnais, Vigo
4,076 lbs, Corsican Prince, Montevideo
1,580 lbs, Corsican Prince, Asuncion
86,283 lbs, Caronia, London
19,394 lbs, Blair, Alexander
4,018 lbs, Cabo Torres, Lisbon
580 lbs, Hoxie, Cork
33,114 lbs, Lisbon, Kobe
45,866 lbs, Carmania, London
6,018 lbs, Santa Maria, Iquique
8,140 lbs, Santa Maria, Uyuni
6,208 lbs, Santa Maria, Talcahuano
29,047 lbs, Laconia, Liverpool
156,618 lbs, Antonino Lopez, Barcelona
424 lbs, Bankdale, Casablanca
4,335 lbs, Bankdale, Oporto
8,994 lbs, Bankdale, Algiers
32,987 lbs, Bankdale, Marseilles
34,071 lbs, General Gassouin, Rouen
11,285 lbs, Cristobal Colon, Gijon
43,175 lbs, Artigas, Manchester

Current Prices are now printed in connection with the Market Reports. See index, page 2.

GREASE, LUBRICATING—28,481 lbs, Balsam, Manchester
6,018 lbs, Volendam, Frankfurt
28,400 lbs, Nieuw Amsterdam, Amsterdam
27,743 lbs, Veendam, Rotterdam
1,976 lbs, Teno, Mollendo
2,288 lbs, Teno, Iquique
29,422 lbs, Teno, Antofagasta
6,546 lbs, Teno, Bolivia
3,996 lbs, Teno, Valparaiso
14,698 lbs, Teno, Talcahuano
1,272 lbs, Teno, Corral
58,064 lbs, Minnewaska, London
16,339 lbs, East Side, Glasgow
10,300 lbs, Coellada, Belfast
4,559 lbs, Coellada, Dublin
51,758 lbs, Adriatic, Liverpool
29,955 lbs, Arabic, Antwerp
28,593 lbs, Baltic, Liverpool
47,912 lbs, Japanese Prince, Yokohama
110,042 lbs, Japanese Prince, Kobe
8,065 lbs, Japanese Prince, Shanghai
13,110 lbs, Japanese Prince, Dairen
49,502 lbs, Western World, Buenos Aires
10,080 lbs, Edenton, Saigon
4,463 lbs, Meranke, Semerang
4,397 lbs, Meranke, Belawan
PINE—43,186 lbs, Santa Maria, Talcahuano
GUM, ALOE—10,788 lbs, Adriatic, Liverpool
ESTER—1,211 lbs, Pt Albany, Sydney
MANILA—5,675 lbs, Pt Albany, Sydney
OLIBANUM—1,410 lbs, Guatemala, Champerico
HAIR—8,475 lbs, Suffren, Havre
ANIMAL—3,672 lbs, Suffren, Havre
CATTLE—26,349 lbs, Carmania, London
HOG—60,770 lbs, Adriatic, Liverpool
HYDROGEN PEROXIDE—14,100 lbs, Japanese Prince, Yokohama or Kobe
59,218 lbs, Japanese Prince, Kobe
INK, PRINTING — 5,610 lbs, Santa Mario, Lima
7,292 lbs, Teno, Valparaiso
2,480 lbs, American Trader, London
4,218 lbs, Chepstow Castle, Durban
19,084 lbs, Jadden, Melbourne
10,961 lbs, Orizaba, Havana
32,444 lbs, Tuscania, London
WRITING—10,950 lbs, Silverguava, Tokio
INSECTICIDE—18,900 lbs, Blair, Alexandria
IODINE, POWD—75 lbs, Caronia, London
IRON OXIDE — 7,456 lbs, Western World, Buenos Aires
JAPAN—28,926 lbs, Cold Harbor, Glasgow
LACQUER—7,312 lbs, Antonio Lopez, Barcelona
4,932 lbs, Santa Maria, Valparaiso
PYROXYLIN—11,341 lbs, Royal Prince, Kobe
2,736 lbs, Silverguava, Kobe
1,552 lbs, Kepwickhall, Constanza
2,852 lbs, Hinnoy, Lisbon
THINNER—285 gls, Kepwickhall, Constanza
1,650 gls, Silverguava, Kobe
LARD—16,000 lbs, Oranje Nassau, Port au Prince
972,650 lbs, Thuringia, Hamburg
12,500 lbs, Thuringia, Koenigsberg
4,944 lbs, Hinnoy, Oporto
32,500 lbs, City of Alton, Rotterdam
22,313 lbs, Resolute, Stettin
7,500 lbs, New Colombia, Teneriffe
16,500 lbs, Marengo, Newcastle
620,595 lbs, Hamburg, Hamburg
415,025 lbs, Marengo, Hull
6,300 lbs, Hamburg, Wasa
10,000 lbs, Hamburg, Uleaborg
79,100 lbs, Hamburg, Wiborg
96,645 lbs, Hamburg, Stettin
12,600 lbs, Hamburg, Danzig
31,250 lbs, Hamburg, Koenigsberg
58,500 lbs, La Bourdonnais, Bordeaux
86,050 lbs, Macabi, Puerto Colombia
159,750 lbs, Caronia, London
35,118 lbs, Orizaba, Havana
11,187 lbs, Hoxie, Cork
9,246 lbs, St Mary, Cienfuegos
39,610 lbs, St Mary, Santiago
57,000 lbs, Glendoyle, Pastelillio
7,200 lbs, Matura, San Fernando
299,600 lbs, Carmania, London
4,150 lbs, Ponce, Ponce
22,200 lbs, Laconia, Liverpool
8,600 lbs, San Juan, San Juan
4,765 lbs, Luna, Jacmel
6,400 lbs, Karlsruhe, Bremen
3,300 lbs, Karlsruhe, Stockholm
19,800 lbs, Karlsruhe, Wiborg
163,527 lbs, Artigas, Manchester
382,247 lbs, Balsam, Manchester
355,500 lbs, Saturnia, Trieste
13,000 lbs, Olympic, Southampton
12,780 lbs, Homeric, Southampton
754,098 lbs, Volendam, Rotterdam
305,139 lbs, Nieuw Amsterdam, Rotterdam
31,500 lbs, Nieuw Amsterdam, Kehl
12,600 lbs, Nieuw Amsterdam, Karlsruhe
700,997 lbs, Veendam, Rotterdam
6,500 lbs, Veendam, Mannheim
32,000 lbs, American Trader, London
162,435 lbs, Minnewaska, London
5,550 lbs, Coellada, Dublin
12,950 lbs, Coellada, Belfast
184,655 lbs, Arabic, Antwerp
251,660 lbs, Adriatic, Liverpool
228,000 lbs, Tuscania, London
45,500 lbs, President Harding, Bremen
47,950 lbs, Pennland, Antwerp
LEAD, ACETATE—2,130 lbs, Silverguava, Manila
ARSENATE—1,874 lbs, Luna, Cape Haitien
WHITE—48,459 lbs, Nieuw Amsterdam, Amsterdam
181,168 lbs, Adriatic, Liverpool
LEAVES, LAUREL—324 lbs, Silverguava, Yokohama
LIME CITRATE—122,953 lbs, Tuscania, London
MERCURY—1,681 lbs, Resolute, Hamburg
METHANOL—7,600 gls, Royal Prince, Kobe
MILK POWDER—6,349 lbs, San Lorenzo, San Juan
1,890 lbs, San Juan, Ponce
3,800 lbs, Silverguava, Tientsin
8,653 lbs, Silverguava, Yokohama
1,890 lbs, Roma, Naples
9,301 lbs, Ile de France, Havre
2,253 lbs, Kepwickhall, Constanza
2,578 lbs, Blair, Alexandria
NAPHTHA—2,500 gls, New Colombia, Apobo
10,200 gls, New Colombia, Sierra Leone
51,040 gls, New Colombia, Teneriffe
53,000 gls, New Colombia, Accra
6,000 gls, New Colombia, Cape Coast
25,000 gls, New Colombia, Grand Bassam
10,000 gls, New Colombia, Sekondi
4,000 gls, New Colombia, Assinie

NAPHTHA—60,000 gls, New Colombia, Ada
15,000 gls, New Colombia, Lome
92,730 gls, New Colombia, Lagos
80,000 gls, New Colombia, Port Harcourt
72,000 gls, New Colombia, Seccondee
1,000 gls, New Colombia, Duala
1,105,524 gls, Lampo, Algiers or Bone or Tunis
114,000 gls, Chepstow Castle, Beira
2,750 gls, Hinnoy, Lisbon
30,000 gls, Jadden, Sydney
DEODORIZED—1,099,014 gls, Lampo, Algiers or Bone or Tunis
775,462 gls, Merope, La Pallice
1,765,113 gls, Merope, Rouen
NICKEL OXIDE—283,870 lbs, Veendam, Rotterdam
163,915 lbs, City of Alton, Rotterdam
OIL, BATCHING—2,000 gls, Edenton, Saigon
BURNING — 2,016 gls, Lampo, Algiers or Bone or Tunis
COCONUT—5,184 lbs, Orizaba, Havana
44,374 lbs, Western World, Buenos Aires
46,420 lbs, Glendola, Pastelillio
22,002 lbs, Glendola, Puerto Tarafa
CORN—9,018 lbs, Royal Prince, Yokohama
15,850 lbs, Silverguava, Kobe
9,116 lbs, Japanese Prince, Yokohama
COTTONSEED—44,374 lbs, Western World, Buenos Aires
CYLINDER—1,296,293 gls, Jenny, Hamburg
462,000 gls, General Gassouin, Rouen
275 gls, Luna, Cape Haitien
2,100 gls, Teno, Mollendo
EDIBLE—23,856 lbs, Teno, Antofogasta
9,272 lbs, Teno, Talcahuano
18,760 lbs, Teno, Valparaiso
20,115 lbs, Corsican Prince, Buenos Aires
ENGINE—550 gls, Santa Maria, Talara
184,800 gls, General Gassouin, Rouen
2,016 gls, Volendam, Rotterdam
2,142 gls, Volendam, Rotterdam
ESSENTIAL—647 lbs, Laconia, Liverpool
656 lbs, American Trader, London
1,400 lbs, Caronia, London
1,658 lbs, American Merchant, London
FLOOR—2,156 lbs, East Side, Dublin
FLOTATION—275 gls, Teno, Bollvia
275 gls, Silverguava, Kobe
FUEL—2,750 gls, Santa Maria, Uyuni
1,050 gls, Corozal, Santo Domingo
1,420 gls, Corozal, Monte Cristy
2,940 gls, Hinnoy, Oporto
7,150 gls, New Colombia, Sierra Leone
5,500 gls, New Colombia, Marshall
2,750 gls, New Colombia, Ada
16,500 gls, New Colombia, Apapa
1,375 gls, Jadden, Brisbane
LINSEED—2,272 lbs, Ponce, Ponce
LUBRICATING — 4,230 gls, Oranje Nassau, La Guaira
500 gls, Oranje Nassau, Tucacas
330 gls, Oranje Nassau, Pampatar
5,540 gls, Silverguava, Yokohama
2,585 gls, Silverguava, Kobe
6,710 gls, Toba, Yokohama
15,015 gls, Toba, Chemulpo
500 gls, Toba, Chinampo
4,650 gls, Toba, Osaka
2,848 gls, Roma, Genoa
3,065 gls, Alesia, Galatin
1,525 gls, Alesia, Cluz
3,200 gls, Alesia, Sibin
14,000 gls, Alesia, Bucharest
9,810 gls, Port Albany, Fremantle
7,770 gls, Port Albany, Brisbane
372,275 gls, Port Albany, Sydney
12,264 gls, Thuringia, Hamburg
38,242 gls, Hinnoy, Oporto
20,884 gls, Hinnoy, Lisbon
151,786 gls, Hinnoy, Marseilles
4,830 gls, Kepwickhall, Algiers
7,098 gls, Kepwickhall, Oran
7,105 gls, Kepwickhall, Tunis
2,540 gls, Kepwickhall, Salonica
23,465 gls, Kepwickhall, Constanza
17,400 gls, City of Alton, Rotterdam
5,670 gls, City of Alton, Amsterdam
6,636 gls, Ambridge, Rotterdam
21,420 gls, Resolute, Hamburg
8,075 gls, New Columbia, Grand Bassam
750 gls, New Columbia, Assinie
2,000 gls, New Columbia, Seccondee
4,650 gls, New Columbia, Accra
770 gls, New Columbia, Ada
1,250 gls, New Columbia, Lagos
550 gls, New Columbia, Apapa
67,598 gls, Marengo, Newcastle
11,298 gls, Marengo, Hull
2,520 gls, Hamburg, Hungary
47,586 gls, Hamburg, Hamburg
13,940 gls, Macabi, Porto Colombia
12,390 gls, La Bourdonnais, Bordeaux
2,394 gls, La Bourdonnais, Vigo
363,510 gls, Corsican Prince, Buenos Aires
1,450 gls, Corsican Prince, Asuncion
16,723 gls, Caronia, London
485 gls, Jadden, Sydney
3,850 gls, Jadden, Geelong
1,500 gls, Jadden, Adelaide
153,190 gls, Blair, Alexandria
850 gls, Blair, Famagusta
5,500 gls, Blair, Alexandretta
2,525 gls, Blair, Jaffa
450 gls, Blair, Haifa
5,530 gls, Blair, Beirut
18,210 gls, Cabo Torres, Lisbon
29,400 gls, Cabo Torres, Bilbao
11,340 gls, Cabo Torres, Santander
1,470 gls, Cabo Torres, Seville
6,300 gls, Cold Harbor, Glasgow
2,490 gls, Cold Harbor, Dublin
1,680 gls, Hoxie, Cork
2,320 gls, St Mary, Cienfuegos
940 gls, Matura, Port of Spain
600 gls, Matura, Bolivar
53,825 gls, Lisbon, Yokohama
18,095 gls, Lisbon, Kobe
20,400 gls, Carmania, London
1,540 gls, Santa Maria, Supe
1,260 gls, Santa Maria, Pisco
950 gls, Santa Maria, Arequipa
530 gls, Santa Maria, Mollendo
620 gls, Santa Maria, Arriba
5,615 gls, Santa Maria, Arica
4,675 gls, Santa Maria, Iquique
1,925 gls, Santa Maria, Tocopilla
1,000 gls, Santa Maria, Antofagasta
16,500 gls, Santa Maria, Uyuni
2,380 gls, Santa Maria, Coquimbo
1,400 gls, Santa Maria, Valparaiso
10,450 gls, Santa Maria, Talcahuano
1,150 gls, Ponce, Guanica
8,820 gls, Laconia, Liverpool
9,954 gls, Laconia, Birkenhead
7,850 gls, Antonio Lopez, Barcelona
1,470 gls, Antonio Lopez, Valencia

OIL, LUBRICATING—3,150 gls, Antonio Lopez, Ceuta
1,470 gls, Antonio Lopez, Larache
10,710 gls, Bankdale, Lisbon
2,184 gls, Bankdale, Oporto
8,325 gls, Bankdale, Algiers
4,415 gls, Bankdale, Tunis
27,930 gls, Bankdale, Marseilles
35,112 gls, Suffren, Havre
567,000 gls, General Gassouin, Rouen
1,525 gls, Corozal, Santo Domingo
1,090 gls, Corozal, Macoris
650 gls, Corozal, Monte Cristy
2,475 gls, San Juan, Guanica
10,206 gls, Cristobal Colon, Bilbao
840 gls, Cristobal Colon, Pasajes
42,042 gls, Artigas, Manchester
350 gls, Saturnia, Trieste
4,650 gls, Saturnia, Timisoara
10,695 gls, Volendam, Rotterdam
720 gls, Volendam, Coblenz
2,730 gls, Volendam, Frankfurt
28,350 gls, Nieuw Amsterdam, Rotterdam
4,650 gls, Nieuw Amsterdam, Amsterdam
15,590 gls, Veendam, Rotterdam
7,851 gls, Nerissa, St Johns
5,110 gls, Teno, Callao
1,650 gls, Teno, Pacasmayo
4,015 gls, Teno, Mollendo
1,375 gls, Teno, La Paz
1,080 gls, Teno, Arica
330 gls, Teno, Iquique
8,550 gls, Teno, Antofagasta
21,505 gls, Teno, Bolivia
4,540 gls, Teno, Valparaiso
3,750 gls, Teno, Talcahuano
7,045 gls, Teno, Corral
39,060 gls, Minnewaska, London
15,498 gls, American Trader, London
2,100 gls, Coellada, Dublin
52,119 gls, Adriatic, Liverpool
1,650 gls, Adriatic, Gibraltar
22,800 gls, Arabic, Antwerp
798 gs, Arabic, Strassburg
5,260 gls, Arabic, Basel
8,550 gls, Baltic, Liverpool
1,825 gls, Guatemala, Panama
935 gls, Guatemala, La Union
18,275 gls, Japanese Prince, Yokohama
29,165 gls, Japanese Prince, Kobe
4,950 gls, Japanese Prince, Dairen
11,000 gls, Japanese Prince, Shanghai
30,660 gls, Tuscania, London
24,284 gls, Pennland, Antwerp
8,250 gls, American Merchant, London
1,650 gls, Bacchus, Porto Cabello
2,805 gls, Bacchus, Pastelillio
1,650 gls, Edenton, Shanghai
23,700 gls, Edenton, Saigon
1,500 gls, Merauke, Semerang
9,720 gls, Merauke, Belawan
10,900 gls, Merauke, Surabaya
11,100 gls, Merauke, Batavia
660 gls, Merauke, Laboean Bilik
OLEO—8,388 lbs, St Mary, Cienfuegos
57,403 lbs, Carmania, London
67,063 lbs, Artigas, Manchester
296,264 lbs, Volendam, Rotterdam
57,344 lbs, Resolute, Hamburg
123,825 lbs, Ambridge, Rotterdam
101,259 lbs, Hamburg, Hamburg
481,284 lbs, Nieuw Amsterdam, Rotterdam
569,252 lbs, Veendam, Rotterdam
44,275 lbs, Nerissa, St John's
22,430 lbs, Hoxie, Cork
180,312 lbs, Thuringia, Hamburg
12,880 lbs, Kepwickhall, Piraeus
46,789 lbs, President Harding, Bremenstadt
177,689 lbs, Adriatic, Liverpool
89,174 lbs, Tuscania, London
4,544 lbs, Pennland, Antwerp
PALE—150,937 gls, Jenny, Hamburg
92,400 gls, General Gassouin, Rouen
PEPPERMINT—420 lbs, Nieuw Amsterdam, Amsterdam
RED—18,675 lbs, Baltic, Liverpool
SASSAFRAS—620 lbs, Tuscania, London
SOYA BEAN—1,150 lbs, Orizaba, Havana
SPINDLE—92,400 gls, General Gassouin, Rouen
SPRAYING—5,165 gls, Corsican Prince, Buenos Aires
TOBACCO—7,426 lbs, Oranje Nassau, Pt Prince
TRANSFORMER—5,000 gls, Lisbon, Yokohama
92,400 gls, General Gassouin, Rouen
152,599 gls, Jenny, Hamburg
1,650 gls, Pennland, Antwerp
2,750 gls, Adriatic, Liverpool
WORMSEED—684 lbs, Carmania, London
OILCAKE, COCOA—16,344 lbs, Volendam, Rotterdam
COPRA—487,956 lbs, Volendam, Rotterdam
112,090 lbs, Arabic, Antwerp
112,090 lbs, Pennland, Antwerp
LINSEED —239,405 lbs, Volendam, Rotterdam
1,332,041 lbs, Nieuw Amsterdam, Rotterdam
224,295 lbs, East Side, Glasgow
241,512 lbs, Coellada, Dublin
344,935 lbs, Coellada, Belfast
2,843,656 lbs, City of Alton, Rotterdam
112,120 lbs, Cold Harbor, Londonderry
227,260 lbs, Hoxie, Dublin
336,489 lbs, Hoxie, Dublin
OILMEAL, LINSEED—25,000 lbs, Matura, Pt Spain
112,000 lbs, Coellada, Belfast
9,000 lbs, Coellada, Dublin
112,000 lbs, Cold Harbor, Londonderry
56,000 lbs, Cold Harbor, Belfast
PAINT—9,427 lbs, Royal Prince, Yokohama
12,954 lbs, Silverguava, Yokohama
5,206 lbs, Silverguava, Kobe
8,262 lbs, Toba, Yokohama
1,418 lbs, New Colombia, Marshall
4,289 lbs, St Mary, Cienfuegos
5,288 lbs, Glendoyle, Puerto Tarafa
2,700 lbs, Santa Maria, Callao
2,120 lbs, Santa Maria, Salaverry
9,862 lbs, Santa Maria, Tocopilla
2,833 lbs, San Juan, San Juan
1,328 lbs, Cristobal Colon, Bilbao
2,812 lbs, Teno, San Antonio
2,356 lbs, Merauke, Soerabaya
ALUMINUM—6,400 lbs, Silverguava, Yokohama
6,400 lbs, Silverguava, Kobe
AUTOMOBILE—22,560 lbs, Corsican Prince, Buenos Aires
CHEMICAL—95,059 lbs, Caronia, London
COPPER—1,721 lbs, Oranje Nassau, Pampatar
2,732 lbs, Pt Albany, Brisbane
DRY—1,020 lbs, Japanese Prince, Yokohama
LIQUID—320 gls, Oranje Nassau, Pt Prince
240 gls, Oranje Nassau, Curacao
120 gls, Toba, Osaka
156 gls, Orizaba, Havana
OIL—7,910 lbs, Teno, Callao
2,585 lbs, Corsican Prince, Buenos Aires
9,000 lbs, Glendola, Puerto Tarafa
PREPARED—3,850 lbs, Teno, Lima
PYROXYLIN—3,750 lbs, Corsican Prince, Buenos Aires
THINNER—1,660 gls, Antonio Lopez, Barcelona
950 gls, Royal Prince, Yokohama
PARATOLUENE SULFONCHLORIDE — 3,106 lbs, Adriatic, Liverpool
PARIS GREEN—7,810 lbs, San Juan, San Juan
PETROLATUM—26,018 lbs, Marengo, Hull
MEDICINAL—7,347 lbs, Nieuw Amsterdam, Amsterdam
20,160 lbs, American Merchant, London
PETROLEUM, REFD—6,000 gls, New Colombia, Calabar
60,000 gls, New Colombia, Opobo
15,000 gls, New Colombia, Sierra Leone
10,000 gls, New Colombia, Accra
32,000 gls, New Colombia, Ada
19,990 gls, New Colombia, Lome
81,370 gls, New Colombia, Lagos

PETROLEUM, REFINED—25,000 gls, New Colombia, Degama
20,000 gls, New Colombia, Degama
20,000 gls, New Colombia, Harcourt
16,000 gls, New Colombia, Assinie
11,000 gls, New Colombia, Cape Coast
10,000 gls, New Colombia, Duala
50,000 gls, Chepstow Castle, Beira
4,200 gls, Bermuda, Hamilton
7,500 gls, Oranje Nassau, Surinam
295,156 gls, Merope, La Pallice
43,750 gls, Jadden, Geelong
102,320 gls, Jadden, Brisbane
137,500 gls, Jadden, Sydney
106,650 gls, Jadden, Adelaide
2,000 gls, Aaroe, La Guayra
10,000 gls, Matura, Port of Spain
5,000 gls, Luna, Jacmel
3,000 gls, Corozal, Monte Cristy
621,978 gls, Lampo, Algiers or Bone or Tunis
303,540 gls, Jenny, Hamburg
688,800 gls, General Gassouin, Rouen
4,200 gls, Guatemala, Colon
1,000 gls, Bacchus, Puerto Cabello
70,000 gls, Edenton, Hongkong
269,080 gls, Edenton, Shanghai
PIMENTO—60,100 lbs, Saturnia, Trieste
PITCH—8,000 lbs, Matura, Demerara
POTASH XANTHATE—2,284 lbs, Antonio Lopez, Sevilla
4,040 lbs, Port Albany, Adelaide
ROOT, SARSAPARILLA—4,850 lbs, Resolute, Hamburg
SENEGA—686 lbs, Carmania, London
ROSIN —62,373 lbs, Oranje Nassau, Puert Sucre
10,639 lbs, Toba, Osaka
SHELLAC, ORANGE — 12,439 lbs, Caronia, London
SOAP—7,460 lbs, Caronia, London
1,680 lbs, Blair, Alexandria
2,640 lbs, Santa Maria, Salaverry
7,269 lbs, Ponce, San Juan
4,014 lbs, Ponce, Ponce
11,200 lbs, Ponce, Jobos
3,630 lbs, Ponce, Mayaguez
4,500 lbs, Ponce, Aguadilla
37,665 lbs, San Juan, Ponce
9,140 lbs, San Juan, Arroyo
38,025 lbs, San Juan, Mayaguez
13,000 lbs, Luna, Jacmel
34,000 lbs, Luna, Puerto Paix
20,000 lbs, Luna, Petit Goave
20,000 lbs, Luna, Port Prince
4,300 lbs, Volendam, Rotterdam
2,250 lbs, American Trader, London
5,415 lbs, Ile de France, Havre
2,450 lbs, Silverguava, Yokohama
5,603 lbs, Atlantida, Sao La Mar
22,725 lbs, Guatemala, Mazatlan
LAUNDRY—5,312 lbs, St Mary, Santiago
10,835 lbs, Luna, Port Prince
14,500 lbs, Corozal, Macoris
10,250 lbs, Luna, Gonaives
POWDER—13,820 lbs, St Mary, Cienfuegos
3,475 lbs, Veendam, Rotterdam
13,160 lbs, Alesia, Salonica
9,000 lbs, American Merchant, London
SHAVING—4,600 lbs, Veendam, Amsterdam
SODA, ASH—34,442 lbs, Santa Maria, Lima
37,350 lbs, Veendam, Rotterdam
9,750 lbs, American Trader, London
BICARBONATE—37,490 lbs, St Mary, Santiago
7,365 lbs, Santa Maria, Arequipa
52,184 lbs, Lisbon, Yokohama
19,840 lbs, Teno, Corral
605,115 lbs, Japanese Prince, Kobe or Yokohama
CAUSTIC—241,615 lbs, Royal Prince, Yokohama
190,260 lbs, Royal Prince, Kobe
44,050 lbs, Royal Prince, Shanghai
1,182,170 lbs, Silverguava, Kobe
8,652 lbs, Oranje Nassau, Puerto Sucre
760,000 lbs, Silverguava, Yokohama
981,200 lbs, Toba, Kobe
64,560 lbs, Corsican Prince, Buenos
5,700 lbs, Guatemala, Amapala
116,112 lbs, Japanese Prince, Yokohama
247,200 lbs, Japanese Prince, Kobe
71,095 lbs, Japanese Prince, Manila
33,000 lbs, Glendola, Puerto Tarafa
230,720 lbs, Edenton, Shanghai
144,200 lbs, Meranke, Batavia
CYANIDE — 44,111 lbs, Guatemala, Santo Domingo
NITRATE—7,578 lbs, Western World, Santos
SILICATE—86,292 lbs, St Mary, Santiago
65,242 lbs, Santa Maria, Callao
SPONGES—3,714 lbs, Carmania, London
1,851 lbs, Niew Amsterdam, Rotterdam
3,649 lbs, Tuscania, London
REFUSE—6,505 lbs, City of Alton, Amsterdam
STARCH—987 lbs, Macabi, Puerto Colombia
CORN—4,512 lbs, Carmania, London
1,325 lbs, Ponce, Mayaguez
6,419 lbs, Bankdale, Lisbon
15,018 lbs, Cristobal Colon, Gijon
10,575 lbs, Veendam, Rotterdam or Amsterdam
9,822 lbs, Chepstow Castle, Lourenco Marques
3,076 lbs, Chepstow Castle, Capetown
4,218 lbs, Chepstow Castle, Wolvis Bay
1,410 lbs, Royal Prince, Yokohama
1,558 lbs, Royal Prince, Hongkong
12,020 lbs, Hinnoy, Leixoes
12,836 lbs, Hinnoy, Lisbon
32,545 lbs, Marengo, Hull
62,260 lbs, Blair, Alexandria
5,680 lbs, Blair, Alexandretta
13,816 lbs, Adriatic, Liverpool
25,200 lbs, Arabic, Antwerp
1,812 lbs, Japanese Prince, Shanghai
3,108 lbs, Japanese Prince, Manila
LAUNDRY—43,040 lbs, Carmania, London
10,760 lbs, Laconia, Liverpool
4,035 lbs, Hamburg, Hamburg
47,040 lbs, Caronia, London
STEARIN—6,384 lbs, Toba, Kobe
SULPHUR—11,400 lbs, Santa Maria, Callao
SYRUP, CORN—223,890 lbs, Carmania, London
37,651 lbs, Bankdale, Casablanca
84,018 lbs, Homeric, Southampton
103,639 lbs, Teno, Valparaiso
90,458 lbs, East Side, Glasgow
11,934 lbs, Royal Prince, Shanghai
73,000 lbs, Royal Prince, Manila
15,112 lbs, Alesia, Jaffa
21,675 lbs, Corsican Prince, Buenos Aires
20,477 lbs, Caronia, Baghdad
37,857 lbs, Blair, Candia
22,664 lbs, Nerissa, St John's
44,371 lbs, Nerissa, Halifax
4,077 lbs, Adriatic, Bassorux
44,282 lbs, Adriatic, Liverpool
226,324 lbs, Arabic, Antwerp
44,736 lbs, Baltic, Liverpool
11,458 lbs, Japanese Prince, Hongkong
45,444 lbs, Tuscania, London
HYPOPHOSPHITES — 5,472 lbs, Carmania, London
1,800 lbs, Blair, Alexandria
8,116 lbs, Caronia, London
TALC—40,400 lbs, Volendam, Rotterdam
60,000 lbs, Merauke, Belawan Deli
TALLOW—7,682 lbs, Royal Prince, Kobe
TIN DROSS—46,757 lbs, Laconia, Liverpool
104,674 lbs, Baltic, Liverpool
OXIDE—3,742 lbs, Silverguava, Kobe
TOILET PREPS—43,970 lbs, Caronia, Liverpool
TURPENTINE—1,850 gls, Chepstow Castle, East London
3,500 gls, Chepstow Castle, Capetown
150 gls, Oranje Naesau, Pampatar
5,250 gls, Chepstow Castle, Lourenco Marques
500 gls, Royal Prince, Shanghai

F. PAUL WEISS
President

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R. LEAKE
Treasurer

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Agents in all Parts of the World

29 BROADWAY, NEW YORK CITY

Current Prices are now printed in connection with the Market Reports. See index, page 7.

VARNISH—1,862 lbs, Silverguava, Shanghai
3,618 lbs, Marengo, Hull
28,926 lbs, Cold Harbor, Glasgow
8,831 lbs, Toba, Osaka
27,257 lbs, Lisbon, Yokohama
6,112 lbs, Japanese Prince, Yokohama
INSULATING—4,951 lbs, Toba, Yokohama
WAX, PARAFFIN—244,012 lbs, Carmania, London
30,300 lbs, Santa Maria, Callao
71,743 lbs, Laconia, Liverpool
156,108 lbs, Chepstow Castle, Lourenco Marques
51,714 lbs, Minnewaska, London
25,706 lbs, Teno, Corral
36,162 lbs, Coellada, Glasgow
12,376 lbs, Bankdale, Oporto
26,352 lbs, Artigas, Manchester
122,785 lbs, Saturnia, Venice
49,844 lbs, Balsam, Manchester
22,300 lbs, Nieuw Amsterdam, Amsterdam
126,029 lbs, Hoxie, Cork
5,844 lbs, Silverguava, Manila
49,615 lbs, Royal Prince, Yokohama
20,275 lbs, Royal Prince, Kobe
102,164 lbs, Royal Prince, Shanghai
178,432 lbs, Marengo, Newcastle
835,060 lbs, Toba, Yokohama
30,551 lbs, Silverguava, Semerang
147,620 lbs, Toba, Kobe
301,061 lbs, Marengo, Hull
17,907 lbs, Hinnoy, Oporto
19,818 lbs, Corsican Prince, Montevideo
9,280 lbs, Caronia, London
118,711 lbs, Hoxie, Dublin
243,258 lbs, Carmania, London
280,186 lbs, Hoxie, Cork
73,694 lbs, Western World, Buenos Aires
36,823 lbs, Pennland, Antwerp
44,599 lbs, Arabic, Antwerp
32,944 lbs, Baltic, Liverpool
ZINC DROSS — 124,173 lbs, Marengo, Newcastle
CHLORATE—10,246 lbs, Edenton, Manila
OXIDE—49,450 lbs, Volendam, Rotterdam
32,116 lbs, Royal Prnice, Shanghai
41,073 lbs, Marengo, Hull
3,758 lbs, Oranje Nassau, Paramaribo
73,500 lbs, Caronia, London
25,050 lbs, Merauke, Pladjoe
6,263 lbs, Merauke, Sibolga
8,475 lbs, Merauke, Chinnampo
STEARATE—1,540 lbs, Lisbon, Yokohama
1,540 lbs, Lisbon, Kobe

Clearance Dates

Aaro, August 24
Adriatic, August 3
Alesia, August 16
Ambridge, August 9
American Trader, September 5
Antonio Lopez, August 31
Arabic, August 25
Artigas, September 7
Atlantida, September 10
Bacchus, September 1
Balsam, July 28
Baltic, August 17
Bankdale, August 18
Bermuda, August 16
Bermuda, September 7
Blair, July 24
Cabo Torres, August 13
Carmania, August 17
Caronia, August 31
City of Alton, August 16
Coellada, August 15
Cold Harbor, August 29
Corozal, August 31
Corsican Prince, August 14
Cristobal Colon, September 1
East Side, September 11
Edenton, August 24
Fredensborg, August 22
Glendola, September 10
Glendoyle, August 28
General Gassouin, September 5
Guatemala, August 31
Hamburg, August 31
Hinnoy, September 1
Homeric, September 6
Hoxie, September 4
Ile de France, September 7
Jadden, August 15
Jenny, September 14
Japanese Prince, August 26
Karlsruhe, September 4
Kepwickhall, August 31
La Bourdonnais, September 5
Laconia, August 31
Lampo, September 10
Lisbon, July 31
Luna, August 30
Macabi, August 24
Marengo, August 9
Matura, August 22
Mauretania, September 5
Merauke, September 10
Merope, September 13
Minnewaska, September 7
Nerissa, August 30
New Colombia, August 29
Nieuw Amsterdam, August 31
Olancho, September 11
Olympic, August 29
Oranje Nassau, August 24
Orizaba, September 7
Pennland, September 7
Ponce, August 17
Port Albany, September 5
President Harding, September 4
Resolute, August 31
Roma, August 31
San Juan, August 24
Santa Maria, August 29
Saturnia, August 17
Schleswig Holstein, August 31
Silverguava, August 18
St Mary, August 30
Suffren, September 6
Sydfold, September 15
Teno, August 22
Thuringia, September 13
Toba, July 16
Tuscania, September 7
Veendam, August 24
Volendam, August 19
Western World, August 24

Exports from Baltimore

ASPHALT—25 dms, 5 tons, Turpin, Hamburg
20 dms, 5 tons, C A Canfield, Aruba
DEXTRIN—1 bx, 347 lbs, Turpin, Rotterdam
430 bgs, 61,060 lbs, Bellflower, Manchester
EXTRACT, DYEWOOD—20 bxs, 1,120 lbs, Turpin, Hamburg
FERTILIZER, NITROGENOUS—2 bgs, 400 lbs, Bellepline, Rotterdam
GLUCOSE—60 bbls, 41,433 lbs, Balsam, Cardiff
120 bbls, 82,790 lbs, Balsam, Glasgow
GREASE, LCBRICATING—9 bbls, 4,30½ lbs, Bellepline, Rotterdam
HAIR, CATTLE—15 bls, 8,410 lbs, Maihar, London
OIL, CYLINDER—100 bbls, 5,000 gls, Balsam, Glasgow
304 dms, 16,416 gls, Bellflower, Manchester
375 dms, 20,212 gls, Maihar, London
51 bbls, 2,520 gls, Maihar, London
ENGINE—216 bbls, 13,720 gls, Norwegian, London
150 bbls, 13,500 gls, Maihar, London
LUBRICATING—45 dms, 20,598 lbs, Steel Inventor, Kobe
25 dms, 11,492, Steel Inventor, Yokohama
630 bbls, 75,060 gls, Norwegian, London
14 pkgs, 526 gls, Coatsworth, Anruay
258 bbls, 11,923 gls, Turpin, Hamburg
210 bbls, 8,820 gls, Bellflower, Manchester
264 bbls, 13,200 gls, Maihar, London
OILCAKE, LINSEED—2,497 bgs, 881,816 lbs, Bellepline, Rotterdam
PAINT—34 dms, 1,836 gls, Coatsworth, Amuay
SODA ASH—500 bgs, 100,000 bgs, Asuka, Kobe
BICHROMATE—109 cks, 78,400 lbs, Asuka, Kobe
48 cks, 33,600 lbs, Caresholm, Stockholm
32 cks, 32,400 lbs, Bellflower, Manchester
CARBONATE—5 bbls, 1,400 lbs, Steel Inventor, Honolulu
STARCH—440 bgs, 62,040 lbs, Balsam, Glasgow
432 bgs, 60,480 lbs, Bellflower, Manchester
40 bbls, 10,880 lbs, Maihar, Avonmouth
STEARIN—204 bgs, 44,880 lbs, Asuka, Kobe
WAX—429 bbls, 120,473 lbs, Bellflower, Manchester

Exports from Baton Rouge

OIL, FUEL—41,000 bbls, L J Drake, San Juan
20,000 bbls, L J Drake, Ponce
PETROLEUM, CRUDE—53,463 bbls, Pioneer, Havana

Clearance Dates

L J Drake, September 9
Pioneer, September 8

Exports from Beaumont

GASOLINE—1 cargo, Athene, Sands End
KEROSENE—4,800 tons, Pallas, Rouen
2,000 tons, Pallas, Dunkirk
PETROLEUM — 750 tons, Braheholm, Eydhaven

Clearance Dates

Athene, September 5
Braheholm, September 8
Pallas, September 5

Exports from Boston

ACID, SULPHURIC—5 dms, 7,774 lbs, San Blas, Havana
ALUMINA SULPHATE—75 bgs, 15,000 lbs, San Blas, Havana
AMMONIA SULPHATE—50 bgs, 10,000 lbs, Frances Parsons, Windsor
ASPHALT, SHOE—20 bbls, 9,491 lbs, Scythia, Liverpool
BLACK, LAMP—2 cs, 124 lbs, Prince George, Yarmouth
BLACKING, SHOE—1 cs, 39 lbs, Farnorth, St Johns
BLUE, LAUNDRY—2 cs, 180 lbs, Yarmouth, Yarmouth
BOILER COMPOUND—1 dm, 1,228 lbs, Yarmouth, Yarmouth
BONE MEAL—500 bgs, 50,000 lbs, Peaceland, Wolfville
CEMENT, CAN—18 dms, 1,020 lbs, Malakand, London
RUBBER—3 cs, 57 lbs, Farnorth, St Johns
4 dms, 216 gls, San Blas, Havana
2 bbls, 13 cs, 5 cans, 4 dms, 2,928 lbs, San Blas, Havana
DISINFECTANT—10 dms, 5,197 lbs, President Adams, Hongkong
COALTAR—10 bbls, 4,350 lbs, San Blas, Havana
DRESSING, LEATHER—5 bxs, 120 lbs, Malakand, London
SHOE—7 cs, 409 lbs, Farnorth, St Johns
2 half bbls, 1 bbl. 10 kgs, 3 cs, 1,545 lbs, San Blas, Havana
9 bxs, 785 lbs, Prince George, Yarmouth
DRUGG$STS' SUNDRIES—1 box, Malakand, London
EGG, DRIED WHOLE—4 cs, 500 lbs, Farnorth, Halifax
EXTRACT, HEMLOCK—1 bbl, 490 lbs, Farnorth, St Johns
FERTILIZER, COMMERCIAL — 8,300 bgs, 850,000 lbs, Frances Parsons, Windsor
6,300 bgs, 650,000 lbs, Peaceland, Wolfville
2,800 bgs, 280,000 lbs, Ronald C Longmire, Wolfville
FILLER, GUM—4 cs, 3 bxs, 725 lbs, San Blas, Havana
WOOD—3 cs, 300 lbs, President Adams, Honolulu
GLUE, LIQUID—5 bbls, 2,917 lbs, Malakand, London
PHOTOENGRAVING—50 cs, 2,950 lbs, Malakand, London
HAIR, HOG—20 bls, 5,451 lbs, Malakand, London
INK, PRINTING—1 qt, 8 lbs, Scythia, Liverpool
1 bx, 50 lbs, Prince George, Yarmouth
SHOE—3 cs, 5 cans, 2 kgs, 599 lbs, President Adams, Kobe
WRITING—73 cs, 13,748 lbs, President Adams, Shanghai
1 bx, 328 lbs, President Adams, Hongkong
LARD—150 trcs, 57,012 lbs, Scythia, Liverpool
MEDICINAL PREPS—45 straps, 1,845 lbs, San Blas, Havana
4,200 bxs, 77,990 lbs, Malakand, London
MUCILAGE—3 bxs, 752 lbs, President Adams, Shanghai
2 pkgs, 86 lbs, President Adams, Hongkong
OIL, FLOOR—12 cs, 622 lbs, Scythia, Liverpool
FURNACE—10 dms, 540 gls, Farnorth, St Johns
LUBRICATING—10 bbls, 546 lbs, Farnorth, St Johns
9 bbls, 450 gls, Yarmouth, Yarmouth
OLEO—30 bbls, 11,835 lbs, San Blas, Havana
TRANSFORMER—1 crt, 2 gls, Prince George, Yarmouth
PAINT—4 dms, 360 lbs, Farnorth, St Johns
8 cs, 450 lbs, San Blas, Havana
PASTE—3 bbls, 660 lbs, Farnorth, Halifax
STATIONERS'—1 cs, 651 lbs, President Adams, Shanghai
2 bxs, 101 lbs, President Adams, Hongkong
PEPPER, RED—3 bgs, 170 lbs, Prince George, Yarmouth
PITCH, SHOE—1 bbl, 126 lbs, Farnorth, St Johns
POLISH, FURNITURE—3 bxs, 132 qts, Yarmouth, Yarmouth
SHOE—6 cs, 880 lbs, San Blas, Havana
SILVER—3 crtns, 12 gls, Yarmouth, Yarmouth
POTASH, MURIATE—100 bgs, 20,000 lbs, Frances Parsons, Windsor
PUTTY POWDER—1 bx, 750 lbs, President Adams, Kobe
ROSIN, GUM—15 bbls, 7,925 lbs, Prince George, Yarmouth
10 bbls, 5,885 lbs, Yarmouth, Yarmouth
SHELLAC—611 bgs, 128,904 lbs, Norwegian, London
SOAP—10 cs, 611 lbs, San Bras, Havana
FLAKES—70 cs, 2,198 lbs, San Blas, Havana
TAR—5 cs, 130 lbs, San Blas, Havana
SODA NITRATE—300 bgs, 50,100 lbs, Frances Parsons, Windsor
1,200 bgs, 200,400 lbs, Peaceland, Wolfville
SUPERPHOSPHATE—4,000 bgs, 400,000 lbs, Ronald C Longmire, Wolfville
TOILET POWDER—3 crtns, 114 lbs, Yarmouth, Yarmouth
TURPENTINE, GUM—10 bbls, 506½ gls, Yarmouth, Yarmouth
WASHING COMPOUND—30 cs, 900 lbs, Prince George, Yarmouth
WASHING POWDER—1 cs, 8¼ lbs, Prince George, Yarmouth
WAX—1 bx, 60 lbs, President Adams, Kobe
SEALING—3 cs, 591 lbs, President Adams, Manila
SHOE—2 cs, 3 bbls, 4 kgs, 2 crts, 1,327 lbs, President Adams, Kobe

Clearance Dates

Farnorth, September 4.
Ronald C. Longmire, September 17.
Malakand, September 8.
Norwegian, September 5.
Frances Parsons, September 14.
Peaceland, September 11.
President Adams, September 8.
Prince George, September 5, 7, 10, 12, 14.
San Blas, September 7.
Scythia, September 13.
Yarmouth, September 6, 8, 13.

Exports from Galveston

ASPHALT—1 car, Ninian, Liverpool
40 tons, Emergency Aid, Hamburg
BLACK, CARBON—10 tons, Emergency Aid, Hamburg
OIL, LUBRICATING—1 dm, Santos, Yokohama
750 tons, Braheholm, Oslo
SULPHUR—4,750 tons, Portvale, Buenos Aires
4,000 tons, Induna, Harburg
7,200 tons, King Frederick, Freemantle
3,600 tons, Bretagne, Quebec
2,200 tons, Lionel, Auckland
1,100 tons, Lionel, New Tylmouth
2,300 tons, Lionel, Geelong
1,430 tons, Lionel, Adelaide
1,100 tons, Lionel, Port Lincoln
WAX—2,541 bgs, Santos, Dairea

Clearance Dates

Braheholm, September 10
Bretagne, September 13
Emergency Aid, September 13
Induna, September 10
Lionel, September 8
Ninian, September 7
Portvale, September 7
Santos, September 7

Exports from Houston

BLACK, CARBON—1,400 cs, Niagara, Havre
537 cs, Atlantic City, Kobe
337 cs, Middleham Castle, Havre
300 cs, Atlantic City, Yokohama
GASOLINE—66,000 bbls, W H Tilford, Havana
56,000 bbls, Nausicaa, Rouen
KEROSENE—19,000 bbls, Ardor, Genoa
OIL, BLACK—15,000 bbls, Rudolph Albrecht, Copenhagen
FUEL—58,000 bbls, Inverurie, Hull
GAS—52,000 bbls, Winnetou, Rouen
43,000 bbls, Queen Maeve, Queenstown
87,000 bbls, Wilhelm A Reidemann, Hamburg
LUBRICATING—65 bbls, Middleham Castle, Antwerp
13,000 bbls, Rudolph Albrecht, Copenhagen
OILCAKE, COTTONSEED—3,000 tons, Fredensbro, Norresundby
PETROLEUM, CRUDE—55,000 bbls, Franklin, Rouen
SULPHUR—30 tons, Middleham Castle, Antwerp
30 tons, West Quechee, Rotterdam

Clearance Dates

Rudolph Albrecht, September 11
Atlantic City, September 8
Ardor, September 7
Franklin, September 12
Fredensbro, September 13
Middleham Castle, September 10
Nausicaa, September 8
Niagara, September 7
Wilhelm A Reidemann, September 12
W H Tilford, September 7

Exports from Los Angeles

BORAX—4,000 bgs, 452,000 lbs, Hesperos, Rotterdam
22,400 lbs, Nooderdijk, Rotterdam
5,080 bgs, 574,040 lbs, Nooderdijk, Rotterdam
1,181 bgs, 227,400 lbs, Nooderdijk, Hamburg
8,000 bgs, 904,000 lbs, Hesperos, Hamburg
GASOLINE—35,975 bbls, Los Alamos, Barnett
31,293 bbls, Gustaf E Reuter, Landsend
67,891 bbls, Sommerstad, Landsend
76,375 bbls, Stigstad, Rouen
KEROSENE—95,359 bbls, Varanger, Shanghai
61,893 bbls, Tecumseh, Shanghai
58,035 bbls, Pleiodn, Yokohama
OIL, BATCHING—13,000 bbls, Silveray, Calcutta
DIESEL—40,706 bbls, Mojave, Balboa
30,645 bbls, Tejon, Balboa
FUEL—32,439 bbls, Mojave, Balboa
38,413 bbls, Tejon, Balboa
70,400 bbls, Aurora, Shanghai
PETROLEUM, CRUDE—69,797 bbls, David McKelvy, Yokohama
3,145 bbls, Canadian Rover, Vancouver
SPIRITS, WHITE—36,378 bbls, Gustaf E Reuter, Lansend
SODA ASH—1,550 bgs, 303,000 lbs, Taiyo, Kobe
2,000 bgs, 404,000 lbs, Taiyo, Yokohama
SULPHUR SOLUTION—5 bbls, 2,260 lbs, Taiyo, Tokyo

Clearance Dates

Aurora, September 5
Canadian Rover, September 9
Los Alamos, September 6
David McKelvy, September 4
Mojave, September 2
Pleidon, September 6
Gustaf E Reuter, September 2
Silveray, September 6
Sommerstad, September 4
Stigstad, September 8
Tecumseh, September 4
Tejon, September 3
Varanger, September 3

Exports from Mobile

AMMONIA SULPHATE—5,600 double bgs, Atlanta City, Yokohama/Kobe
COSMETICS—1 bx, H C Flood, Bridgetown
PINENE—300 bbls, West Hika, Rotterdam
ROSIN—300 bbls, Sierentz, Montevideo
50 bbls, Atlanta City, Yokohama
100 bbls, Atlanta City, Kobe
450 bbls, Aster, London
500 bbls, Aster, Newcastle
SOAP—54 cs, William, Port au Prince
TURPENTINE—2 dms, H C Flood, Port of Spain

Clearance Dates

Aster, September 11
H C Flood, September 13
Maryland, September 5
Sierentz, September 8
West Hika, September 1
William, September 4

Exports from New Orleans

AMMONIA, SULPHATE—1,000 bgs, Mariana, Guayanilla
ASPHALT—71 tons, Ingram, Hamburg
BLACK, CARBON—55 cs, Mont Cenis, Marseilles
30 cs, Carplaka, Antwerp
180 tons, Ingram, Bremen
80 tons, Ingram, Hamburg
150 cs, Atlantic City, Kobe
450 cs, Duquesne, Liverpool
6,425 cs, Duquesne, Manchester
40 cs, Leerdam, Rotterdam
20 cs, Leerdam, Amsterdam
CALCIUM CARBIDE—20 dms, Imperator, Bluefields
300 dms, Hibueras, Tampico
CORKBOARD—85 bls, Hibueras, Vera Cruz
CYANIDE—174 cs, Hibueras, Tampico
FERTILIZER—20 sx, Granada, Ceiba
300 sx, Mariana, San Juan
GASOLINE—50 dms, Imperator, Bluefields
150 cs, Kosmos, Puerto Cabezas
500 dms, Rama, Bluefields
70 dms, 30 cs, Mangua, Bluefields
25 cs, 75 dms, Wawa, Ceiba
10 dms, Lydia, Frontera
11,840 tons, Castor, Thameshaven
GLUCOSE—20 bbls, Duquesne, Manchester
GREASE—12 dms, Mantilla, Aruba
KEROSENE—85 cs, Granada, Ceiba
2,506,027 gls, Anna Maersk, Gothenburg
65 cs, Imperator, Bluefields
165 cs, Kosmos, Puerto Cabezas
87 cs, Rama, Bluefields
220 cs, Managua, Bluefields
LIME, HYDRATED—120 bgs, Sinaloa, Tampico
OIL, FUEL—1,266,528 gls, N L Connelly, Puerto Tarafa
LUBRICATING—5 dms, Granada, Ceiba
125 tons, Ingram, Hamburg
161 dms, Turrialba, Havana
15 cs, Kosmos, Puerto Cabezas
154 dms, Atlantic City, Kobe
118 dms, Mantilla, Aruba
130 bbls, Duquesne, Liverpool
318 bbls, Duquesne, Manchester
37 bbls, Leerdam, Antwerp
215 bbls, Leerdam, Rotterdam
115 bbls, Leerdam, Amsterdam
REFINED—25 dms, 6 cs, Imperator, Bluefields
37 dms, Managua, Bluefields
OILMEAL, PEANUT—1,176 tons, Ingram, Hamburg
ROSIN—11 tons, Ingram, Bremen
55 tons, Ingram, Hamburg
50 bbls, Atlantic City, Yokohama
280 bbls, Heredia, Cartegena
200 bbls, Duquesne, Liverpool
SOAP, COTTONSEED—250 bbls, Duquesne, Liverpool
TAR—60 dms, Duquesne, Liverpool
WAX—184 bbls, Duquesne, Liverpool
40 bbls, 61 bgs, Duquesne, Manchester
650 bgs, Leerdam, Antwerp
1,748 bgs, Sinaloa, Tampico
250 bgs, Sinaloa, Vera Cruz
124 bbls, Carplaka, Antwerp
100 sx, Mariana, San Juan
15 tons, Ingram, Hamburg
188 bbls, Atlantic City, Yokohama
1,748 sx, Heredia, Havana

Clearance Dates

Atlantic City, September 14
Carplaka, September 12
Castor, September 15
W L Connelly, September 15
Duquesne, September 7
Granada, August 31
Heredia, September 7
Hibueras, September 5
Imperator, September 13
Ingram, September 4
Jose, September 7
Kosmos, September 13
Leerdam, September 10
Lydia, September 6
Anna Maersk, September 10
Managua, September 14
Mantilla, September 14
Mariana, September 12
Mont Cenis, September 11
Rama, September 7
Tegucigalpa, September 7
Turrialba, September 4
Sinaloa, September 12
Wawa, September 5

Exports from Norfolk

BARK, BLACK HAW—2,156 lbs, Havelland, Hamburg
EXTRACT, LOGWOOD—31,827 lbs, Manchester Shipper, Manchester
1,210 lbs, Havelland, Danzig
TANNING—71,959 lbs, Gaasterdyk, Rotterdam
81,165 lbs, Jeanette Skinner, Hamburg
44,850 lbs, Exeter City, Bristol
TOBACCO—9,140 lbs, Havelland, Bremen
1,223 lbs, Havelland, Oslo
HERBS, LOBELLA—945 lbs, Havelland, Genoa
OCHER—127,776 lbs, Quaker City, Dundee
239,200 lbs, Quaker City, Leith
110,075 lbs, Jeanette Skinner, Bremen
PEANUTS, SHELLED—190,300 lbs, Bellepline, Rotterdam
ROOTS AND HERBS—25,963 lbs, Quaker City, London
2,469 lbs, Havelland, Hamburg
STARCH, CORN—550 bgs, 61,325 lbs, Gaasterdyk, Rotterdam
200 bgs, 28,000 lbs, Manchester Shipper, Liverpool
500 bgs, 61,325 lbs, Bellepline, Rotterdam
432 bgs, 60,480 lbs, Exeter City, Bristol

Exports from Pensacola

ROSIN, WOOD—100 bbls, West Zeda, Rotterdam
200 bbls, West Zeda, London

Clearance Date

West Zeda, September 6

Exports from Philadelphia

AMMONIA, ANHYDROUS—80 cylinders, Norden, Havana
BARIUM SULPHATE — 15 cks, Manchester Shipper, Liverpool and Manchester
BENZIN—1,300,000 gls, Brunswick, London
BENZOL—1,000,000 gls, Brunswick, London
CLAY—16 bgs, Coahoma County, Antwerp
HYDROGEN PEROXIDE—7 cs, Norden, Vera Cruz
MEDICINAL PREPS—50 cs, Devonian, Liverpool
2 cs, The Angelus, Montevideo
NAPHTHA—1,300,000 gls, Brunswick, London
DEODORIZED—25 dms, Nkgland, Ivigtut
NITROUS OXIDE AND OXYGEN — 1 cs, Hagen, Hamburg
OIL, COMPOUND—10 dms, Luxpaille, Oran
CYLINDER—961 bbls, Manchester Shipper, Liverpool and Manchester
145 bbls, New York City, Bristol via Cardiff
128 bbls, Coahoma County, Antwerp
198 dms, Hagen, Hamburg
45 cs, 255 dms, Norden, Havana
28 pkgs, Manchester Shipper, Manchester and Liverpool

(Continued on page 32)

Current Prices are now printed in connection with the Market Reports. See index, page 2.

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The Market Authority Since 1871
Chemicals-Dyestuffs-Drugs-Paints-Oils-Fertilizers
Founded October 18, 1871, by William O. Allison

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Interest in N. W. D. A. Meeting

Meetings of the National Wholesale Druggists' Association have always been interesting. In recent years their interest has been marked with a deal of special seriousness due to the indefiniteness of the wholesaler's position in the distribution scheme of the future. This year's meeting, next week, should be particularly interesting, first, because of the steps which have been taken in certain quarters of the wholesale drug trade with a purpose of assuring a better tenure of existence; secondly, because of the diversity of opinion which exists with respect to the practicability of these projects, even with respect to their wisdom.

What was largely, if not wholly, in a theoretical stage last year, in the matter of bettering the wholesale druggist's position is now in part presented as an existing condition. Some phases of the theory have been applied to an experiment of rather comprehensive scope. Naturally, this brings forward a new phase of the whole problem as it has to do with the changes wrought by the experiment in the relations of wholesaler to wholesaler. Of course, much that has existed, or at least has been alleged to exist, in the recent past to give rise to complaints has been the result of practices not wholly in keeping with the ideal in such internal relations. The question now arises, quite logically, in many minds, as to whether the new experiment has not in fact aggravated the conditions heretofore looked upon as far from satisfactory.

Obviously, the experiment in the betterment of drug wholesaling brings forward questions of new relations between those members of the trade who are the experimenters and the retail druggists who are their customers and the manufacturers of packaged products for whom they have been distributors. It is, quite naturally, the stated purpose of the experiment to improve the wholesalers' condition with respect to these relations, even though many of the better observers of conditions in the wholesale trade have given voice to the belief that the need for improvement lay chiefly in the relations of the wholesalers among themselves. It remains for the future to prove the practicability of the plan that has been undertaken, insofar as the stated purpose is concerned. It remains, also, to be proved what the experiment will mean with respect to the relative position of all members of the wholesale trade, who are service jobbers. It is largely in this connection that the new development will be a topic of absorbing interest at the N. W. D. A. meeting. The indications are that it will get a deal of attention.

There are, in fact, two experiments in the improvement of the wholesale druggists' position now under way. The larger one is a merger. The smaller, but in a manner equally significant, one is the introduction of a retailers' mutual division into the regular business of a service jobber. Neither of these experiments follows exactly or fully the lines which have been most widely suggested as those apparently offering the best approach to the solution of the wholesaler's problem. Both of them, however, comprise enough of the suggested programs to provide a means of judging their worth, were it not for the possible opposing influence of the other factors not contained in the earlier suggestions.

The future proving of the value of the merger and bifurcated plans of improving conditions in the wholesale drug trade may be somewhat long in coming. It is to be expected that the problem which has confronted the wholesaler for years will not be set aside from consideration to await the outcome of the experiments—it will not diminish in seriousness meanwhile. So, those who now feel the need that relief measures be undertaken still have much to attend to. The common nature of their problem will naturally lead them to a common discussion when they convene in the meeting of their association. But, what of their problem remains to interest those of their fellows who have set out in their own way to seek its solution?

It is, in truth, only on the side of its wisdom that the experiment in the improvement of the wholesale drug trade can be discussed at a wholesale druggists' meeting. Opinion can exist, doubtless does exist, with respect to the practicability of the undertaking. But, its practicability must be proved by trial. Some of the factors which are to be expected to influence the results of the experiment are recognizable. Some others doubtless will soon be brought to view. It is quite likely that any discussion of the matter will include not a little emphasizing of these factors, those of a favorable influence and those of an adverse influence alike.

There will be other matters to concern the wholesale druggists when they meet again in annual convention. The whole interest of the trade has never been centered in the one phase of existence, the conditions attending the distribution of packaged products. So, next week's meeting of the National Wholesale Druggists' Association will have all the facets of interest that have been turned to discussion at its meetings in the past. It may quite well be that a new brightness will be added to all the facets by the newer developments in the matter of relationships. There is every reason to expect that the meeting will be well worth attending.

Current Price Lists Moved

The lists of current prices, which for years were printed in the front part of the Oil, Paint and Drug Reporter, beginning on page 3, are now printed separately in the respective market sections. They follow the items of market comment. An index to the market sections is printed on page 2.

Quinine Trust Victory

Filing, last week, in the United States court in this city, of the signed consent decree in the so-called "Quinine Trust" case brought to an end another effort of the Government of the United States to bring the operations of foreign monopolies into harmony with the trade-regulating statutes of this country. Morally, at least, the prosecution of the quinine monopoly has led to a victory. What the practical results will be remains to be seen.

The quinine monopoly as a result of the prosecution was in a situation somewhat different from that in which similar attempts to regulate foreign monopolies in other chemical products place the interests concerned. The whole question of the attitude of a foreign monopoly toward such efforts at control depends on the relative endurance of the producer and the consumer. If the former has sufficient assurance that consumers must have the monopolized article at any price and under any terms, the likelihood of acceptance of a restraining decree would not be large. In case a foreign monopoly should choose to stand out and accept whatsoever might be the outcome of a suit to make it conform with the statutory regulations, the situation would be a very interesting one. There is room for doubt that a result satisfactory to consumers in the United States could be attained.

With respect to the quinine monopoly, there was a potent influence in the development of synthetic chemicals and of bacteriological treatment which can be substituted for the cinchona alkaloids in the practice of medicine. Quinine is not so clearly a necessary medicament as it was a few decades ago. The market for quinine in the United States is a good one, too good, in fact, to be lost through any idea of vested rights on the part of those who control the supply. Logically, it was better that some measure of regulation be accepted than that this valuable market be abandoned to competitive products.

The decree in the government's suit against the quinine monopoly, the text of which as originally drawn was published in the Oil, Paint and Drug Reporter for September 10, is very comprehensive in its scope. The defendants are enjoined thereby from doing a number of things which have been customary in their contractual relations with distributors and consumers in this country. But, no decree can prevent the attainment of quite similar results by other means. A contract is not necessary to control the price

or terms in connection with the sale of an article of commerce whose production is as closely held as is that of cinchona bark and its derivatives. The decree admits this in its exception with respect to the permitting of direct dealing abroad between manufacturing consumers and the producing monopoly. Will the result be that most, if not all, of the large buying of quinine will be done in Europe? There are indications that such may be the case. The government will thereby lose some revenue heretofore obtained by virtue of the income tax on distributors of quinine in this country.

It is interesting to ponder the significance of the fact that the quinine trust decree as signed differs from the original text in the omission of but one sentence. That sentence is the one which declared that the "combination and arrangements and the restraint attained thereby (so far as hereinafter prohibited) are hereby declared to be illegal and in violation of the statutes above named." The omission of this declaration, of course, does not change the effect of the injunction laid by the decree. It does, however, indicate, as is hereinbefore pointed out, that necessity, rather than imperative obligation was the major influence in the acceptance of the decree. This acceptance constitutes a moral victory. It remains to be seen what the price of quinine will be a year from now.

Trade News Briefly Told

Production in the Frannie section of Wyoming is being held back because of lack of adequate storage.

The Skelly Oil Company has purchased a tract of 4,000 acres for a test in Harvey county, Kansas.

The Rockefeller Foundation disbursed $16,185,000 in 1927, out of available funds totaling $18,430,500.

A linseed oil and oilcake mill has been put in operation in Melbourne, Australia, by British Oil & Cake Mills, Ltd.

The Union Oil Company of California has abandoned its test on upper Williams Forks in the Craig, Colo., region.

Little Sheep Mountain dome, Big Horn county, Wyoming, is soon to be drilled by the Prairie Oil & Gas Company.

Preparation is being made by the Sinclair Oil & Gas Company to test a new structure in Rush county, Kansas.

Monopolization by the state of the importation of petroleum products is proposed in a bill now before the parliament of Albania.

The annual dinner of the British Institution of Petroleum Technologists will be held at the Connaught Rooms, London, October 3.

Permission to run a natural gas pipeline from Leavenworth, Kansas, to St. Joseph, Mo., has been asked by the Empire Gas & Fuel Company.

Three refineries are to be built by the Spanish petroleum monopoly. One will be located at Barcelona, the others, probably, at Seville and Santander.

The President of Mexico has abolished the tax on natural gas, presumably in view of a project to pipe gas from the United States to Monterey.

Robert Quinn, assistant sales manager for the Mathieson Alkali Works, this city, returned last week from a month's vacation spent in the Central West.

J. M. Dullahan, Santa Reta, Texas, has redrawn an oil and gas tract in the Oregon Basin, Wyoming, which he had lost through failure to work his holding.

M. L. Davies, president of the Standard Chemical Company, Toronto, landed in Montreal September 16 from the "Regina," returning from a trip to Europe.

Fire in the Denver plant of the General Chemical Company, September 16, caused a loss of about $5,000. There was no material interference with operations.

A mile-and-a-half extension of the Raccoon Bend pool, Austin county, Texas, was made September 7 by a well for the Humble Oil & Refining Company.

The board of directors and the committee on advertising of the National Fertilizer Association will meet at the Mayflower Hotel, Washington, September 25.

F. G. Fischer, president of the American-South Pacific Company, nitrate of soda importer, this city, returned September 17 from a business trip to Europe.

W. G. Fraser, president of the Beaver Soap & Chemical Company, Winnipeg, Man., arrived in Montreal September 15 on his way home from a trip to Europe.

Plans have been filed for the erection of a four-story laboratory for the Rockefeller Institute for Medical Research, this city. The new building will cost $250,000.

Production in the Rainbow pool, Cowley county, Kansas, has been extended northward by a well for the Gypsy Oil Company, which was brought in September 8.

John Clarke, of John Clarke & Co., seed and spice broker, this city, has been spending weekends this Summer at his colonial home, "Wit's End," at the mouth of the Connecticut River.

W. L. Mellon, president of the Gulf Oil Corporation, Pittsburgh, arrived in this city on the "Mauretania" September 21, after attending conferences of oil company executives in London.

Adolph Schwartz, chemical sales manager for the Roessler & Hasslacher Chemical Company, this city, spent a part of his vacation last week in the vicinity of his home at Plainfield, N. J.

The Thompson-Haywood Chemical Company, Des Moines, Iowa, will move October 1 into its new three-story warehouse and office building at the corner of Southwest First and Granger streets.

Simplification practice recommendation No. 41, applying to insecticides and fungicides, has been reaffirmed by the standing committee of the insecticide industry for another year without change.

Latvian growers of medicinal plants harvested 132,000 pounds in 1927. The leading items were:—Clover tops, 18,250 pounds; chamomile flowers, 14,100 pounds; valerian root, 13,200 pounds.

Bolivia, under a law effective from September 1, makes registration and analysis of pharmaceutical preparations a prerequisite of importation. Two samples must be furnished for analysis.

Charles C. Drew, assistant secretary of the American Dyewood Company, this city, has returned from a vacation spent at his daughter's camp on the Mohawk River, at Duneback Ferry, N. Y.

Cuning-Smith Farmers' Fertilizers, Ltd., and Mt. Lytell Farmers' Fertilizers, Ltd., large Australian manufacturers of superphosphate, have combined. A new plant will be erected at Geraldton, Western Australia.

The McDermott Brothers Company, maker of tanks, kilns, and dryers for chemicals, paints and oils, Allentown, Pa., is now represented in this city by the Associated Materials Company, Inc., 25 Beaver street.

The Kendrick Oil Company, Tulsa, has filed a complaint with the Interstate Commerce Commission seeking lower freight rates on shipments of gas oil from Burkburnett and Isom, Texas, to Paducah, Ky.

Development of the phosphate rock deposits along the northern coast of Esthonia, estimated to contain 2,700,000 tons, has been started on a larger scale by the government controlled organization, A. S. Eesti Phosphorite.

The Grozneft oil trust is making trial borings on the shore of the Caspian Sea south of the town of Makhach-Kala, on the strength of geological indications of a possible continuation of the strata that yield oil at Grozny.

September 8, when natural gas went into use in New Orleans, the fires in the artificial gas plant were extinguished for the first time since 1835. The old plant will be maintained in a stand-by condition for emergencies.

The Phillips Petroleum Company, Bartlesville, Okla., has discontinued all its branch sales offices in the Central States territory with the exception of that at Minneapolis, which will be operated as sales headquarters for the entire territory.

Walter L. Filmer, for several years prior to 1928 secretary of the Chicago Perfumery, Soap and Extract Association, recently returned to the Chicago office of the Monsanto Chemical Works, after what he says was the first vacation he has had in ten years.

Otis McClintock, vice-president of the Independent Oil & Gas Company, has been made president of the First National Bank & Trust Company of Tulsa, recently organized to consolidate the First Trust & Savings Bank and the First National Bank of Tulsa.

Exports of leading botanical drugs from South Africa to the United States during the first half of 1928 were as follows (corresponding 1927 figures in parentheses):—Aloe, 33,700 pounds (6,700); buchu leaves, 74,600 pounds (61,500); quince seed, 8,500 pounds (8,000).

An expedition sent out by the Archangel iodine works has discovered on the Murman coast iodine-yielding seaweeds, which are richer in iodine than the weeds of the White Sea. The organization of the manufacture of iodine from the new material is planned for next year.

The Anglo-Saxon Petroleum Company and the Anglo-Egyptian Petroleum Company, represented by a new concern, the British Somaliland Petroleum Company, are making plans to prospect for petroleum at Dagah Shabel and other points in the Somaliland Protectorate.

Dr. Julius Klein, director of the Bureau of Foreign and Domestic Commerce, Department of Commerce, in a radio talk, September 15, on "Foreign Quinine Monopoly Relinquishes Its Grip," commented on the quinine trust suit consent decree published in this paper September 10.

Sale of the shares of the Sociedad Fodina, owner of an important potash concession in Spain, to a Barcelona attorney is reported to mark the acquisition of the property by French and German interests. The new purpose of the new owners is understood to be not to work the deposit.

C. Wilbur Miller, president of the Davison Chemical Company and the Silica-Gel Corporation, Baltimore, who went abroad some weeks ago to confer with prominent foreigners in regard to matters affecting especially the Silica-Gel Corporation, arrived in this city on his return September 21.

A. L. Pearce, representing Peek & Velsor, Inc., botanical drug merchant, this city, has returned to his St. Louis office after a tour of domestic producing centers. Mr. Pearce reported that collections had been good in the majority of items and that costs this year showed a slight reduction in favor of dealers.

The Interstate Commerce Commission has suspended the operation of proposed freight rate changes which would increase freight rates on petroleum and petroleum products, carloads, from Oklahoma producing points to El Paso, Texas, from 58 cents to 65 cents per 100 pounds. The case is docketed as I & S 3167.

Manufacturers of motor alcohol in Sweden are endeavoring to have the government repeal the tax law which would make a levy of approximately 5.3c. per gallon on their product after January 1, 1929. They say that the tax would stop production. Some 308,600 gallons of alcohol was used in motor fuels in Sweden in 1927.

Plans for the centennial celebration, during the week of May 27, 1929, by the College of Pharmacy of the City of New York, are to be arranged by a committee consisting of Nicholas Murray Butler, president of Columbia University; Dr. Henry C. Lovis, of Seabury & Johnson; and Walter B. Simpson, of the college.

Increase of the duty on imported flaxseed by the full legal allowance of 50 percent was urged upon President Coolidge September 17 by Senator Nye and Senator Frazier, of North Dakota, in the course of a political visit. A similar request was made to the President by Governor Christianson of Minnesota in a telegram sent September 20.

An informative bulletin on the softening and lubricating of rayon has been published by the National Oil Products Company, Harrison, N. J. It is the work of George F. Ecker, jr., the company's silk expert, and Dr. C. I. Post, chief chemist. The company will send a copy of the bulletin free to anyone interested in rayon who will ask for it.

A telegram was sent September 19 to the American Red Cross, Washington, by the directors of the New York Quinine & Chemical Works, Brooklyn, offering the company's entire facilities at cost to supply such chemicals and drugs as it manufactures and handles, for use in relief work necessitated by the hurricanes in Porto Rico and Florida.

Freight rates on carload shipments of coaltar from Ensley and Woodward, Ala., to points in Florida are attacked by the William P. McDonald Construction Company, Flushing, L. I., in a complaint filed with the Interstate Commerce Commission, which declares that the commodity rates provided for such shipments are higher than the class rates on which the shipments would otherwise move.

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(For other trade news notes see the several market divisions.)

Chicago Perfumery Trade Begins Fall Activities

CHICAGO, Sept. 20, 1928.

With its membership announced as being up to the even 100 mark, the Chicago Perfumery, Soap and Extract Association opened the Fall season with a luncheon September 19 at the Hamilton Club. William H. Muttera, president of the organization, outlined his plans for programs for the meetings to come and discussed other plans for the season, as did other leading figures in the association. Frank H. Pettee, secretary, reported the 1928 directory of members should be completed soon.

Coincident with the reopening of the association season, the weekly bowling assemblies of the trade are being resumed, under the leadership of H. D. Crooks, of John Blocki, Inc., chairman of the association's bowling committee. A well-rounded schedule of matches has been made up for the Fall tournament.

The Norda Essential Oil & Chemical Company is announced as a newly acquired member of the association. The company recently opened a Chicago office in charge of H. C. Bartold and O. J. Cohen.

Shoemaker Sold to Smith

The wholesale drug firm of Robert Shoemaker & Co., Philadelphia, has been purchased by Valentine H. Smith & Co., of the same city.

Obituaries

Dr. Charles H. Stowell

Charles H. Stowell, M. D., for twenty-five years treasurer and general manager of the J. C. Ayer Company, proprietary medicines, Lowell, Mass., died September 17 at his home in that city. He was in his seventy-eighth year.

Dr. Stowell was born in Wyoming county, New York. After graduation in medicine at the University of Michigan in 1872 he was in practice five years and then, for twelve years, was on the medical faculty of that university. In 1889 he went to Washington and published several medical books and periodicals. He went with the Ayer company in 1897 and became treasurer and general manager three years later. He retired in 1925.

A widow, Mrs. Louise Reed Stowell, survives.

Martin A. Roth

Martin A. Roth, assistant manager for the Bayer Company, Inc., at its New York office, died in a sleeping car berth September 19 on a train going through Nebraska. He was returning from the San Francisco convention of the National Association of Retail Druggists. The body was taken from the train at Lexington, Neb.

Mr. Roth was born in Lorraine, Ohio, thirty-eight years ago. He joined the sales force of the Bayer Company in July, 1914. He rose rapidly in the employ of the company and soon became manager of its branch in San Francisco. November 1, 1926, he came to New York as assistant to Raymond Foster, the manager. Mr. Roth was well known in the drug trade all over the country and had a host of friends. He served as a member of the general committee on arrangements and entertainment at the 1927 meeting of the National Wholesale Druggists' Association.

Mr. Roth resided in this city. A widow, Mrs. Anita Roth, and two children, a boy and a girl, survive.

Interment was at Lorraine, September 22.

Obituary Notes

James R. Gilmore, at various times an operator in the oil fields of Pennsylvania, Kentucky, and Oklahoma, died September 16 at his summer home in Rumson, N. J. He was sixty-nine years old.

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Andrew Rohan, president of the Churngold Corporation, margarin manufacturer, Cincinnati, died September 16 at the age of sixty-nine years.

—

Narcisse Lemoine, manufacturer of veterinary medicines, Framingham, Mass., was found dead in his residence September 17. He had been missing for five days. Mr. Lemoine was a native of Canada and was sixty-five years old.

—

E. J. Evans, associated with the Evans & Ott Color Company, manufacturer of printing ink colors, Chicago, died in a hospital there September 10, of a fractured skull, the result of an attack upon him the night of September 8. His father, T. P. Evans, his mother, two brothers, and three sisters survive.

—

Frank A. Spooner, associated with the George H. Shaw Company, varnish manufacturer, Middleborough, Mass., died September 17.

—

Harry N. Baumeister, factory manager and salesman for Innis, Speiden & Co., this city, died September 18 at his home in Jersey City, N. J. He was sixty-one years old and had been with Innis, Speiden & Co. for sixteen years.

Electrochemists Discuss High-Temperature Work

Deposition Technic and Other Operations on Program at Charleston Meeting

Chemical reactions at temperatures of 1,000° C. and above were the subject of discussion at one of the sessions of the American Electrochemical Society in its fifty-fourth meeting at Charleston, W. Va., September 20 to 22. Many phases of the subject in the technic of high-temperature operations and in the application of high temperatures to the production of chemical compounds were presented in the papers contributed to this discussion.

The society devoted the forenoons of the three days to papers and discussions, and for the most part visited industrial plants in the afternoons. One of the trips of inspection was to Huntington, the objective being the plant of the International Nickel Company.

Paul J. Kruesi, of the Southern Ferro Alloys Company, Chattanooga, president of the society, presided at the high-temperature and scientific sessions, Thursday and Friday. Duncan MacRae presided at the Saturday session, at which electrodeposition subjects, for the most part, were discussed. The board of directors met Thursday afternoon.

Measuring High Temperatures

Thursday forenoon's session was devoted to discussion of chemical reactions at high temperatures (1,000°C. and above). The importance of the measurement of high temperatures in chemical, as well as metallurgical, ceramic, and other processes, lent considerable interest to a paper on "Thermoelectric Measurement of Temperatures Above 1,500° C.," by H. L. Watson and H. Abrams, of the general research department of the General Electric Company. The authors discussed the standard methods of measuring temperatures from 1,000° to 2,000° C. and described a tungsten-graphite thermocouple used in such measurements.

This couple had been used, with suitable protection, to over 1,700° C. (3,092° F.) in oxidizing atmospheres. Repeated runs to 1,850° C. (3,362° F.) were made in the

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Paul J. Kruesi
President, A. E. S.

vacuum furnace, as well as short runs to about 2,400° C. (4,352° F.) at atmospheric pressure in reducing atmospheres. The elements when properly selected and treated are interchangeable within 5 percent and an expression had been obtained for the temperature-e. m. f. relation over the useful range. Automatic recording and control of furnace temperatures in ceramics and steel making have been made possible by use of this couple. It was the belief of the authors that the apparatus represents a long-sought means of determining high temperatures.

Furnace for Chemical Products

Experiments and experiences with the use of high-frequency induction furnace equipment in the preparation of chemical compounds above 1,000° C. at the Pacific experimental station of the Bureau of Mines were reviewed in a paper by C. N. Schuette and C. G. Maier. Varieties of furnace equipment, including a simple type of vacuum furnace not hitherto described, were discussed. Detailed methods of making several special types of crucibles were given. A number of the special problems of technic met in chemical operations at high temperatures were discussed. Examples of operations, involving the preparation of ferrous oxide and ferrous sulphide, were related.

A particular usefulness set forth for the equipment described was that of the reproducibility of results under the same experimental conditions. Records of certain repeated experiments, as kept during operation, are almost exact duplicates as to time interval and event. To an experienced operator, making a standardized run, the power indicator tells the whole story. The speed and ease of operation are other features that make this equipment of great value in high-temperature work, as is also the applicability of the furnace to different conditions imposed by experimental requirements.

Production of Beryllium

Recent experiments which resulted in the first practicable preparation of metallic beryllium from fused electrolytes were

(Continued on page 52)

Quinine Trust Decree Is Accepted by U. S. Judge

The consent decree in the government's suit against the quinine monopoly was signed September 20 by counsel for the Dutch quinine manufacturers. It was accepted on the same day by Judge Francis A. Winslow in the United States District Court for the Southern District of New York.

Upon the acceptance of the decree, the government's criminal suit and its action in admiralty were dismissed. The quinine seized in connection with the several actions in the anti-trust suit was released.

The defendants to the "qninine trust" decree, the text of which was published in the September 10 issue of this paper, include all the quinine manufacturers of the world. They have all agreed to the government's conditions. Their names follow:—

Dutch.—N. V. Amsterdamsche Chininefabrick, N. V. Bandoengsche Kininefabrick, N. V. Nederlandsche Kininefabrick, Arent Roalf Van Linge, Pieter Hajonides Van Der Muelen, S. Van Velzen Camphuis, J. G. W. Sieger.

Swiss.—Hoffman-LaRoche & Co., Emil Barrell, Henri G. Senn.

Japanese.—A. G. Hoshi Pharmaceutical Company, Ltd.

German.—C. F. Boehringer & Soehne G. m. b. H., Chininfabrik Braunschweig Buchler & Co., Vereingte Chininfabriken Zimmer & Co. G m. b. H.

French.—Societe du Traitement des Quinquinas, A. Taillandier, Pointet & Girard, Pharmacie Central des Pharmaciens de France.

English.—Howards & Sons, Ltd., R. W. Greeff & Co., Ltd.

American.—Merck & Co., Inc., New York Quinine & Chemical Works, Inc., R. W. Greeff & Co., Inc., Mallinckrodt Chemical Works, Inc., Hoffman-LaRoche Chemical Works, Inc., Robert H. De Greeff, Elmer H. Bobst.

Nitrate Distributors Merge

Organization of Nitrate Distributors, Ltd., a combination of leading Chile nitrate of soda factors, is reported from London. The new company will handle 51 percent of the Chilean production allotted to European and Egyptian markets. The combine is made up of Barburizza & Co., Antony Gibbs & Son, Lautaro Nitrates, Ltd., the British & South Pacific Trading Company and Andrew Weir.

Bristol-Myers to Buy Frederick F. Ingram Co.

Preliminary negotiations have been completed for the acquisition by the Bristol-Myers Company, Brooklyn, of the Frederick F. Ingram Company, Detroit. An issue of common stock of the Bristol-Myers Company has been placed privately by J. & W. Seligman & Co., proceeds from which will be used to acquire the Detroit concern. Both companies are in the proprietary medicine and cosmetic business.

Following completion of the acquisition of the Ingram properties and the financing incident thereto, the Bristol-Myers Company will have a total of 201,410 shares of no par value common stock outstanding of an authorized issue of 500,000 shares. Combined profits of the Bristol-Myers and Ingram companies in 1927 were $1,167,274, equal to $5.79 a share earned on the 201,410 shares common stock to be outstanding following absorption of the Ingram company. In the first six months of 1928 earnings were $777,160, equal to $3.85 per share.

Vivaudou Case Charging Trade Restraint Heard

CHICAGO, Sept. 21, 1928.

Hearings to complete the Federal Trade Commission's case in its complaint against V. Vivadou, Inc., were held in room 2243, Transportation building, here, yesterday and today. The company, manufacturer of cosmetics and allied products, is respondent in the complaint brought under provisions of the Clayton act, with reference to alleged acquisitions of stocks of other companies.

Thursday's hearing was devoted to taking testimony of witnesses for the commission in trying to prove its case of alleged violation of provision 7 of the Clayton act in the purchase by Vivadou of stocks of the Alfred H. Smith Company and the Melba Manufacturing Company, both cosmetics manufacturers.

Witnesses included representatives of several Chicago buyers of lines of toilet goods and cosmetics, with A. L. Smith, attorney for the commission, trying to bring out testimony to show the status of competition between Vivadou and the Smith and Melba concerns before and after the alleged stock acquisitions. E. M. Averill, trial examiner, presided. The commission is attempting to show lessened competition between the companies after the acquisition. The respondent company, V. Vivadou, Inc., is denying any violation of the act. Previous hearings in the case have been held in New York.

Today's hearing was largely given to closing of the commission's case. It is expected that the commission will then rest and that the respondent will start its case in hearings to be held at times and places to be announced later.

DuPont Acquires Second Plant for Making Alum

E. I. duPont de Nemours & Co. has purchased the alum plant of the North Hudson Chemical Company, located at Albany, N. Y. Operation of the plant was taken over by the duPont company September 15.

Acquisition of the North Hudson plant gives the duPont company two alum plants, the other being located at Philadelphia. Sales of production of both plants will be directed from the company's sales office in New York.

National Petroleum Association Holds Its Annual Meeting at Atlantic City

Twenty-sixth Session Finds Organization Ever Growing in the Scope of Its Work —Lyons Re-elected President

ATLANTIC CITY, Sept. 21, 1928.

The twenty-sixth annual meeting of the National Petroleum Association was brought to a close this noon after three days of sessions, technical and business, which were alive with new thoughts of value to the petroleum industry as a whole, and particularly to the Eastern refiners. E. M. Lyons, president of the Tiona Refining Company, Philadelphia, was re-elected president.

The meeting was well attended, for, while the association has fifty-six members, the registration was well over one hundred and the attendance at meetings averaged seventy-five representatives of member companies.

The quality of both the routine reports and technical papers was high. The former reflected an increasing interest on the part of members in the various group and department activities of the association, and not the least part of the value of the technical papers was the discussion and diverse opinions provoked, all of which led to much clearing of the air.

The matter of co-operative research was discussed at length and a start was made in a vote to instruct trustees to look into its possibilities. The board of trustees was increased from twelve to fifteen members in order to handle the increasing activities of the association.

In recognition of his long unofficial service as assistant to Herbert G. Eaton, recording secretary, E. W. Smiley was elected assistant recording secretary, an office just created.

The work of the Washington office, headed by Fayette B. Dow, received a large maasure of praise both in a formal resolution and on the floor and in private conversations of members.

The meeting was called to order at 2 p. m. September 19 by E. M. Lyons,

E. M. Lyons
Re-elected President

president, with sixty-five representatives of member companies present. Others arrived and registered during the afternoon.

Address of the President

The annual address read by E. M. Lyons, Tiona Refining Company, Philadelphia, president, follows:—

Last year we distributed at our annual meeting a printed volume entitled "The National Petroleum Association, 1902-1927." The occasion was our twenty-fifth anniversary.

At that meeting I had the honor to be elected the seventh president of the association.

I have recently been looking again at the memorial volume. I have turned the pages on which appear the faces of my predecessors in office—H. A. Jamieson, W. E. Wall, Wm. Muir, Samuel Messer, U. G. Lyons, O. P. Keeney—men who gave so generously of their time and talents to the affairs of the association. I have today a far better understanding of their affection for the association, their belief in its usefulness, than I had a year ago.

All of the executives of our member companies are busy men. Some are busier than others. But I have yet to hear an expression of regret about time devoted to the work of the association.

There is something about it which makes a strong, personal appeal. It gratifies, in some measure, the natural desire to render an unselfish service, to give as well as to receive.

I know of no trade association, in the oil industry or outside of it, to which business men, as distinguished from the employed staff, devote so much time as do the officers of our association. Take the trustees, for example. A meeting of the board has been held each month. Some of the trustees have been unable to attend these meetings, but as a whole, the meetings have been well attended. Agenda, previously prepared and distributed by our general counsel, have outlined the subjects for consideration. An eight or ten-hour day has been spent in reviewing, discussing, planning the work of the several departments.

These discussions have been most enlightening. Suggestions of great value have been made. New avenues leading to more efficient and profitable operations have been opened up. To take advantage of them all would have required much more time and a much larger employed personnel than we have available. But I have been impressed with the large number of subjects which are within the proper field of a trade association's endeavor.

Looking back only a comparatively few years we find the association engaged chiefly in a struggle over freight rates. Judge Chamberlin and Mr. Boltz devoted a large part of their time to the trial of cases before the Interstate Commerce Commission and state commissions. That is still a live, important subject. We have a traffic department that is doing a very large amount of work and doing it well. But the association is engaged in many other fields of usefulness. I shall refer to one or two as representative.

Manufacturing Efficiency

Think of manufacture, for example. The association is dealing with it in a number of ways. Some fourteen or fifteen member companies have co-operatively employed an engineer to promote boiler house efficiencies. The results have abundantly justified our expectations. I shall do no more at this time than refer to the reports of Mr. Tarbox and Mr. Ross on that subject. They will be heard later. Other phases of manufacture are discussed in our group meetings. Improvements in refining petroleum are being made with great rapidity. No one knows all about it and no one can be certain that yesterday's knowledge is up-to-date today. I feel certain that we have not scratched the surface of what can be usefully done through the association in learning how to make better oils and to make them more economically.

Reports on Stocks

Since the last annual meeting our Department of Trade and Commerce has worked out a service which is of great importance to a large proportion of our members. Twenty-eight companies which manufacture oils from Pennsylvania grade crude oil are receiving weekly reports of stocks on hand at the refineries. The quantities as received from the individual companies are compiled at the Washington office and are mailed to the refineries in the form of aggregate figures for the several products. This department is capable of expansion in usefulness. There are marketing practices in the oil industry which cannot be supported either from the standpoint of private business or the public interest. The trustees have discussed plans for broadening the activities of the department in this field and we hope that some of them will be worked out during the coming year.

Work of Fire Marshals

I cannot commend too highly the work of our fire and safety marshals. These groups have been very active in some districts and are making progress in others. Men who are experts in fire preventive measures have praised highly the work of the fire marshals and have described it as an original and constructive contribution of the association. It was a logical step to use the fire marshal groups in taking up first-aid training, in which they have had the cordial and helpful assistance of the United States Bureau of Mines.

I shall not undertake to discuss in detail the work of each department. While not all of the members are as familiar with what the association is doing as they should be, they are receiving informative bulletins from the Washington office, and if they read those bulletins they cannot fail to have a reasonable appreciation of the association's activities. I have often wished that an executive of each member company could spend a day or two each year in the Washington office. It would be something of a revelation to him, for the problems that are submitted to that office by our membership of nearly sixty companies are numerous and varied. There is a steady stream of correspondence flowing into and out of that office, which bears witness to the growing use which the association makes of it. In this connection I may add that our employed staff seem to thrive on work. The only members about whom they have any concern are those who do not make a substantial use of their services. The members who have formed the good habit of making regular use of the Washington office do not have to be convinced of the usefulness of the association.

Traffic Problems

The only department which may be said to be specially organized is that which deals with traffic and transportation. Mr. Crane, our traffic attorney, and his assistant, Mr. Elkins, are doing a large amount of work and doing it well. I sometimes wonder whether the executives of our member companies keep sufficiently in touch with their traffic managers to know how many traffic problems they submit to Mr. Crane. Traffic is a highly specialized field which the executive usually regards as a necessary evil. He does not inform himself about it and does not want to. But for the purpose of appraising and appreciating the value of the association an occasional conference with the traffic manager on this subject would be quite enlightening. Mr. Fretter, our trustee in charge of this department, has always interested himself in traffic for many years and his supervision has been most helpful.

The association is greatly indebted to the trustees who have the several departments in charge. I do not intend to emphasize any one of them as compared with another, but, in addition to references already made, I cannot refrain from commending Mr. Scott for his work on standard and tests, Mr. Wotowitch in connection with welfare and insurance, Mr. Hilliard in accountin, Mr. Keeney in membership and relations, Mr. Logan in trade and commerce. Great credit for the success of our association is due to the untiring efforts of our general counsel, Fayette B. Dow.

Our twenty-fifth anniversary volume was dedicated to "the pioneers in the adventure of co-operation in the oil industry." It has been and is an adventure! You will recall the interesting address given by our old friend and new associate, W. T. Holliday, on "The Advantages of a Common Enemy." In the early days our members were drawn together by their common cause against the powerful Standard Oil Company. They were also fighting a battle against unreasonable and discriminating freight rates. Both were enemies outside their gates. In these later days our members are experiencing a different adventure in co-operation. The newer enemies are within. We are seeking to replace ignorance with knowledge, to operate our plants more efficiently, to market our products more intelligently, to cultivate more cordial relations with the public which we serve. In this adventure the problems are more subtle and their solution requires greater candor about ourselves. As the pioneer among co-operative efforts in the oil industry the association has an enviable record, but my experience as your president

(Continued on page 41)

"Middle Run" will help you solve your solvent problems

Manufacturers of special lacquer solvents of which ethyl alcohol is a basic raw material, and varnish makers whose products include ethyl alcohol in the solvent formula, have ended many annoying failures in their production by restricting their ethyl alcohol purchases to Rossville "Middle Run."

Middle Run is free from foul-smelling oils, ketones, aldehydes and syrupy compounds that form unexpected and uncontrollable reactions in the formula.

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Baltimore, Md.—McCormick Building, Light and Barre Streets; Brooklyn, N. Y.—Bush Terminal Building; Buffalo, N.Y.—Larkin Terminal Warehouse Co.; Chicago, Ill.—323 West Polk Street; Cleveland, O.—1200 West Ninth Street; Charlestown, Mass.—10 Wiggins Terminal, 50 Terminal Street; Detroit, Mich.—1931 Howard Street; Lawrenceburg, Ind.—Home Office; New Orleans, La.; Philadelphia, Pa.—701-705 South Front Street; Pittsburgh, Pa.—25th and Smallman Streets; St. Louis, Mo.—St. Louis Terminal Warehouse, 419 South 12th Street.

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Produced under exacting control

Dry Red Lead, Litharge, and Orange Mineral in Casks Higher as Lead Advances—Spot Business in Dry Colors Good

Advances in pig lead and lead oxide quotations furnished the outstanding feature in last week's paint and varnish materials market. Several other price revisions of minor nature were made. Business was reported along broader lines, with the trade looking for a moderately active market over the remainder of 1928. Thus far, producers and manufacturers have not embarked upon their 1929 selling campaigns, although it is expected that the selling movement will get under way early this season.

The increases in quotations for lead oxides in casks were made on September 17, and included litharge, domestic orange mineral, and dry red lead. Buyers had been expecting the advances for the past fortnight, in view of the strong market for the metal during that period, and considerable buying had been done in anticipation of the increase. While quotations for lead pigments in kegs were not changed, the further gain in pig lead had strengthened the market for those products materially. In view of the fact that quotations on pigments in kegs are guaranteed against corroders' decline up to November 30, buyers in some instances were showing a tendency to come into the market and cover for later requirements, expecting that further gains in pig lead prices will be mirrored by an advance in the price basis for pigments.

High lead prices also had a stiffening tendency in the market on chrome yellow. This product has again come in for some keen competitive selling during recent weeks, but the higher production cost resulting from the increase in lead tended to ease off this situation somewhat. Dry color manufacturers reported that they were getting a substantial volume of business on the more important lines, and were looking for a continuance of this condition as consuming manufacturers covered against their factory needs for the coming spring selling season.

Improvement in the general market position extended into the varnish gums group, importers reporting better buying of spot gums, and a revival in buying interest in the later positions. Aside from ester gum, where selling competition was still rather keen, the market was in steady position.

For the first time since 1925, expenditures for new buildings for which permits were issued showed an increase in the first half of this year, according to announcement by the Bureau of Labor Statistics of the Department of Labor, based on returns received from 80 cities having a population of 100,000 or more. The increase for the first half of 1928 amounted to 1 percent as compared with the corresponding period of 1927.

Price Changes

Prices were changed during the past week as follows:—

Advanced	Reduced
Casein, imported fine-ground, ¼c. per lb.	Casein, domestic, 20-30, ¼c. per lb.
Copal, manila nubs, ¼c. per lb.	Copal, E. Indian, black bold native, scraped, ¼c. per lb.
Pontianak selected fine, ¼c. per lb.	Unscraped, ¼c. per lb.
Lead metal, spot, 0.10c. per lb. E. St. Louis, 0.07½c.	Vermilion (English quicksilver), red, 10c. per lb.
Litharge, commercial powdered, 25c. per 100 lbs.	
Assayers', casks, ¼c. per lb.	
Orange mineral, domestic, ¼c. per lb.	
Red lead, dry, casks, 25c. per 100 lbs.	

Comparative Values

Index numbers compiled from eleven typical paint and varnish materials on the basis of a normal of 100 for August 1, 1914, compared as follows:—

Last week.	Prev. week.	Last month.	Last year.
151.1	151.1	151.1	153.2

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Metallic Lead and Zinc

A strong tone ruled throughout the week, following the 10-point advance made by leading sellers on September 17. Demand had broadened, and an active movement of spot metal was reported. Considerable inquiry for lead for October delivery was also reported.

Business in slab zinc was again along routine lines, with consuming manufacturers in most instances not buying beyond their immediate requirements. Producers were holding the market on a fairly steady basis, and were adhering to their policy of curtailed operations.

Current prices on paint and varnish materials, formerly printed on pages 3 and 4, are now printed at the end of this market report.

Lead Prices

Prevailing spot prices at New York, East St. Louis and London for the period from September 17 to September 21, inclusive, are detailed in the following table:—

	Pigs		Spot London
	Per pound		Per ton
	New York.	E. St. Louis.	£ s. d.
Monday	$0.0650	$0.0630	22 0 0
Tuesday	.0650	.0630	22 2 6
Wednesday	.0650	.0632½	22 3 9
Thursday	.0650	.0632½	22 2 6
Friday	.0650	.0632	22 0 0

Joplin Lead Shipments

Recent shipments of lead from Joplin have been as follows:—

	Short tons			
	September		Total to date	
	10-15.	3-8.	1928.	1927.
Shipments...	2,631	2,570	66,689	73,894

Zinc Prices

Prevailing spot prices at New York, East St. Louis and London for the period from September 17 to September 21, inclusive, are detailed in the following table:—

	Slabs		Spot London
	Per pound		Per ton
	New York.	E. St. Louis.	£ s. d.
Monday	$0.0660	$0.0625	24 10 0
Tuesday	.0660	.0625	24 10 0
Wednesday	.0660	.0625	24 7 6
Thursday	.0660	.0625	24 7 6
Friday	.0660	.0625	24 7 6

Joplin Zinc Shipments

Recent shipments of zinc from Joplin have been as follows:—

	Short tons			
	September		Total to date	
	10-15.	3-8.	1928.	1927.
Shipments...	7,054	8,858	411,688	475,842

Pigments

Increases of ¼c. per pound were made last week on powdered litharge in casks, domestic orange mineral in casks, and dry red lead in casks. The advances were effective September 17 and followed a 10-point increase in pig lead.

Corroders reported a better demand for all lead pigments.

The market for zinc pigments remained in steady position throughout the week, a good movement being recorded.

White Lead.—A better undertone had developed, in line with the higher metal market. Corroders reported a good inquiry for all grades for prompt shipment. July white lead exports were 1,223,726 pounds, as compared with 1,303,752 pounds in July, 1927. Exports during the first seven months of 1928 were 8,228,583 pounds, against 6,440,144 pounds in the corresponding period last year.

Red Lead.—Dry red lead in casks was 25 points higher at $10.00 per 100

Valuable information on Imports and Exports of Paint and Varnish Materials is given in port lists beginning on page 5.

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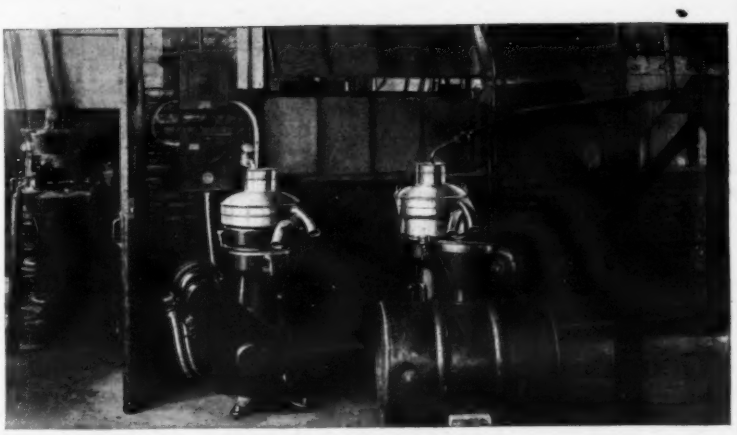

Seibert Varnishes improved by De Laval clarification

De Laval Centrifugal Clarification is the more positive and more economical method of removing foreign particles and other impurities from varnishes, japans, enamels, lacquers and similar products. It is far more satisfactory for this purpose than any other method now in use because:

The removal of impurities is instantaneous, positive and complete under all conditions; the time and material wasted by settling or filtering methods are saved; smoothness of the product is greatly improved and certain goods are made to flow more freely and cover better.

The De Laval Multiple Clarifiers in the Seibert Varnish Company's plant at Detroit, Mich., are doing just these things. It would do as much in yours. Write for Bulletin 200-D.

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pounds, due to the advance in lead. Red lead in kegs was without price change, but met with a better inquiry. July exports of red lead and litharge totaled 334,304 pounds, against 233,312 pounds in the corresponding month last year. Exports for the first seven months of 1928 were 2,007,576 pounds, against 1,777,910 pounds during the corresponding period last year.

Orange Mineral.—Corroders advanced their quotation on American orange mineral ¼c. per pound to 12c. to 13¼c. per pound, as to grade and seller. Fair buying was reported. The imported product was quiet and unchanged.

Litharge.—Commercial powdered was 25 points higher at $9.00 per 100 pounds, with a good demand reported. Litharge in kegs was quiet and unchanged. Assayers' litharge in casks advanced ¼c. to 9c. per pound.

Lithopone.—A good demand was reported on the part of consuming manufacturers in the paint trade, and the market was in steady position. Exports of lithopone during July amounted to 476,631 pounds, as compared with 373,119 pounds in July last year. Exports for the first seven months of the year aggregated 3,675,908 pounds, as compared with 2,477,045 pounds in the corresponding period last year.

Zinc Oxide.—A steady undertone prevailed on all grades last week, with trading fairly active along routine lines. Exports of zinc oxide during July were 2,321,500 pounds, as compared with 2,227,412 pounds in the same month last year. Exports for the first seven months of 1928 were 15,801,402 pounds, against 18,185,243 pounds in the corresponding period last year.

Barytes.—Conditions were much the same as during the preceding week. There was a fair demand for shipments against contracts, with quotations holding unchanged on both the domestic and imported grades.

Dry Colors

The only price change reported during the week was a reduction of 10c. per pound on vermilion red on the part of one seller. Other makers were holding firm at 10 to 15c. over the quotation of the one maker, with quicksilver again higher.

The position of the chrome yellow market had stiffened somewhat, due to the firmer lead position. Other colors were quiet and without change.

Blacks—A steady market for carbon grades prevailed, prices remaining unchanged. July exports of carbon black were 6,290,319 pounds, against 4,616,282 pounds in July last year. Exports for the first seven months of 1928 were 44,079,931 pounds, as compared with 31,308,747 pounds in the comparable period last year. Lampblack and bone black exports in July amounted to 264,477 pounds, against 113,585 pounds in July last year. Exports for the first seven months of 1928 aggregated 1,933,830 pounds, against 1,475,815 pounds in the first seven months of 1927.

Blues.—A fairly steady tone prevailed in the general run of business, with manufacturers quoting iron blues at 32c. to 35c. per pound. On large-lot business, however, competition was sharper, and buyers were looking for supplies around 30c. to 31c. per pound.

Browns.—Earth colors were generally unchanged during the past week, with business still along routine lines. Imports of ochers and siennas in July amounted to 1,316,556 pounds, as compared with 1,994,423 pounds in July, 1927. Imports for the first seven months of 1928 aggregated 11,600,011 pounds, as compared with 11,445,248 pounds in the comparable period of 1927.

Greens.—There was a good inquiry reported for chrome green during the week, and the market held steady on all grades. The advance in the pig lead market, with resultant stiffening of the market situation on chrome yellow, had strengthened the undertone on greens. Commercial, grinders' and jobbers' grades of greens were rather slow during the week, with quotations remaining unchanged.

Reds.—Chief interest again centered in the situation affecting vermilion (English quicksilver) red. One maker reduced his quotation 10c. to $1.85 per pound during the week, but other sellers continued to quote $1.95 to $2.00 per pound. The quicksilver market was reported in strong position, with spot stocks short. Toners were in fairly steady position in last week's trading, with a good demand reported.

Yellows.—Chrome had stiffened somewhat, in sympathy with the further advance in pig lead quotations. The market range was unchanged at 15½c. to 16¼c. per pound, but sellers were less willing to go under the inside quotation on spot business. No changes developed on ochers, either domestic or foreign, business continuing fairly active along routine lines.

Colors in Oil

Inquiry for oil colors for prompt shipment had slackened somewhat during last week's trading, but the market remained in steady position. Manufacturers were looking for but light demand during the remainder of the year, and were shaping up policies and manufacturing plans for the coming spring's business.

Varnish Gums

Consuming manufacturers were reported broadening their operations somewhat last week, and the market was fairly active. Gums for prompt shipment were moving out in good volume, with buyers also reported extending their future operations to some extent. A steady to strong undertone ruled on most grades.

Copals.—Manila grades were coming in for heavier buying, and the market strengthened on nubs, which advanced ¼c. to 14¾c. to 15c. per pound. Pontianaks were a little firmer, selected bold being ¼c. up at 17¼c. to 17½c. per pound, with small chips slightly stronger at 13c. to 13½c. per pound. East Indian black bold was a trifle easier, being ¼c. down at 6¾c. to 7c. on scraped and 5½c. to 6c. per pound on unscraped.

Dammars.—Importers reported a larger volume of sales on dammars last week, with prices strongly held on all grades. Spot stocks were not excessive, and dammar Batavia, which showed a tendency to ease off during the fore part of the week, recovered lost ground and was firm at 22¼c. to 22¾c. per pound at the week-end. Singapore grades were also well maintained.

Kauri.—Limited movement of kauri grades was noted during the week. The market was fairly steady, but buyers were inclined to underbid when coming in for supplies, owing to the easy position ruling at the primary point. Most of the buying was on the cheaper selections.

Esters.—Some makers continued to hold for 9c. on light gum, but business could still be done ½c. per pound under this figure, the market still being under rather sharp competition in some quaters. Demand was fair.

Other Paint Materials

Business continued along fairly active lines last week, with a steady undertone prevailing on most materials. Consuming manufacturers were drawing stocks on contract in good volume, and there was a fair amount of spot trading reported.

Casein.—Domestic 20-30 mesh in casein was ¼c. lower at 15¾c. to 16c. per pound, demand having eased off considerably. The imported fine-ground material advanced ¼c. to 17c. per pound. July casein imports were 2,635,410 pounds, against 2,176,208 pounds in July last year. Imports for the first seven months of 1928 were 18,416,175 pounds, against 17,946,193 pounds in the corresponding period last year.

China Clay.—Inquiry for prompt shipment china clay continued fairly active along contract lines, but there was little spot inquiry reported during the week. Prices were well maintained on all grades.

V. M. and P. Naphtha.—Buyers were not operating far in advance of actual requirements, the tone of the market having eased off somewhat. Sellers quoted 20c. per gallon for the deodorized grade in barrels.

CHICAGO, Sept. 10.—A good fall demand is reported for V. M. & P. naphtha in the Chicago district. Leading sellers have not changed their quotations, but the price situation is considered fairly strong and buyers are actively taking out their full requirements. Ruling prices were (per gallon):—Tankcar, f.o.b. Whiting, 13.9c.; tankwagon, 16.2c.

Whiting.—Small-lot trading predominated in this branch of the market last week, prices showing no change during the period.

Driers

Inquiry for stearates had picked up following the advances of the previous week, and manufacturers reported that they were well sold up on current production. Consuming manufacturers in the paint and varnish have booked in a large way for prompt shipment and for delivery over the remainder of the year as well. Resinates were coming in for better buying last week, but no price changes developed. Oleates and linoleates were in but limited demand during the week, prices undergoing no modification. Compounders of lubricating oils were reported in the market for driers in moderate volume.

Metal Leaf

Demand for metal leaf was holding up fairly well in last week's trading, and a steady market ruled. Gold leaf was moving out in fair quantities at $10.50 to $12.00 per package for the 3⅜ square inch size on the domestic product, the imported grade ranging $10.25 to $10.50 per package. Buyers were showing more interest in offerings of silver leaf, the market holding at $2.25 to $2.75 per package.

Lacquer Materials

A steady broadening demand was a feature of the various items which come under the classification of lacquer materials. With the exception of price shading which was reported in progress in butyl acetate, the result of an effort on the part of some producers to meet the low prices which had been

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named for foreign goods, the market was generally reported as steady. Offers of butyl acetate came out at prices ranging from $1.33 to $1.35 per gallon, as to quantity, and it was suggested that some of these might have comprised synthetic goods. Apart from the above, the entire market was a steady affair with a sufficient amount of new inquiry from various miscellaneous sources to give it a tone of pronounced stability all round. Ethyl acetate was being steadily maintained in all producing quarters on the basis of 87c. per gallon, tanks, works; 89c. car lots, drums, and 92c. per gallon, less than car lots, drums. Steady conditions ruled in ethyl lactate and ethyl oxybutyrate, both of which could be had at 30c. per pound in drums. Although there was a seasonal slowing down in some quarters of the automotive industry, production schedules were still being maintained at an abnormal rate for so late in the season and this accounted for the manner in which some of the lacquer materials were being purchased. Automobile production was running about 60 percent ahead of last year. With the exception that foreign landings of butyl acetate continued at a rather high rate, there were no new features of consequence as regards the import movement in other lacquer materials.

Glues

There was a better inquiry reported for prompt shipment glues last week and the market showed a steady to strong undertone. Fish liquid was well maintained at $1.90 to $2.35 per gallon. Common bone continued to move in good volume at 17c. to 18c. per pound. Hide cabinet met with a better call, sellers quoting 24c. to 28c. per pound for the high grade product and 21c. to 25c. per pound for the low grade.

Window Glass

A strong market for window glass was reported. Current production was reported running about 650,000 boxes per month, with sales over a million boxes per month. This condition has prevailed for several months and has resulted in material depletion of manufacturers' holdings. Price cutting on the idea sizes, which has been more or less general, is reported infrequent, with manufacturers looking for a well-stabilized market on all grades and sizes during the fall selling season.

Volume in the plate glass division of the market was holding up well. Automobile manufacturers continued in the market in a large way, with the plate glass and jobbing trades also large buyers. Prices showed a decided undertone.

The Plate Glass Manufacturers of America report production in August, 1928, at 11,473,697 square feet. This is the biggest month this year and is only about 1,000,000 feet under the highest month in the history of the industry, which was 12,525,221 in June, 1926. The August figures compare with 9,346,069 feet in July, 1928, and with 8,100,000 in January, 1928, which was the lowest month of the year. August, 1928, was the second largest month on record.

Current Prices

(For late price changes, see page 2)

Pigments

Antimony, white, barrels	lb.	.16½@	.17
Asbestine (see Talc, fibrous, in Other Paint Materials).			
Barytes, domestic, floated, car lots, barrels	ton.	30.50 @	—
less car lots, barrels	ton.	34.50	@35.00
f.o.b. St. Louis, car lots, barrels	ton.	23.00 @	—
Southern, off color, works, bulk	ton.	12.00	@20.00
imported, barrels	ton.	27.00	@34.00
Blanc fixe, dry, car lots, works, barrels	lb.	.03½@	—
less car lots, works, barrels,	lb.	.03¾@	—
pulp, works, bulk	ton.	42.50	@45.00
Flake, white, barrels	lb.	.12¼@	—
Litharge, assayers', casks	lb.	.09 @	—
steel kegs	lb.	.13¼@	—
*commercial, powdered, casks, 100 lbs.		9.00 @	—
*steel kegs, less than 500 lbs.	lb.	.13¼@	—
500 to 2,000 lbs	lb.	.1192@	—
2,000 to 10,000 lbs	lb.	.1144@	—
10,000 to 30,000 lbs	lb.	.1103@	—
car lots, minimum 15 tons,	lb.	.1073@	—
Lithopone, domestic, car lots or more, bags	lb.	.05¼@	—
barrels	lb.	.05½@	—
less car lots, bags	lb.	.05½@	—
barrels	lb.	.05¾@	—
imported, ex-dock, barrels	lb.	.05¼@	.05½
ex-warehouse, barrels	lb.	.05¾@	.06
Metallic red or brown, Pennsylvania works, bags, barrels.	ton.	37.00	@45.00
Orange mineral, American, casks	lb.	.12 @	.13¼
French, Tours, casks	lb.	.16½@	—
kegs	lb.	.17½@	—
*Red lead, dry, casks	100 lbs.	10.00 @	—
less than 500 lbs., 100 lb. kegs.	lb.	.13¼@	—
500 to 2,000 lbs., kegs	lb.	.1192@	—
2,000 to 10,000 lbs., kegs	lb.	.1144@	—
10,000 to 30,000 lbs., kegs	lb.	.1103@	—
car lots, min. 15 tons, kegs	lb.	.1073@	—
*Red lead in oil, less than 500 lbs., steel kegs	lb.	.14¾@	—
500 to 2,000 lbs., kegs	lb.	.1327@	—
2,000 to 10,000 lbs., kegs	lb.	.1274@	—
10,000 to 30,000 lbs., kegs	lb.	.1227@	—
car lots, min., 15 tons, kegs	lb.	.1194@	—
Titanium pigment, works, carlots, bags, barrels	lb.	.10 @	—
less car lots, barrels	lb.	.10½@	—
dioxide, barrels	lb.	.35 @	—
White lead, basic carbonate, American, dry, casks	lb.	.08½@	—
basic sulphate, casks	lb.	.07¾@	—
*White lead in oil, less than 500 lbs., 100-lb. kegs	lb.	.13¼@	—
500 to 2,000 lbs., kegs	lb.	.1192@	—
2,000 to 10,000 lbs., kegs	lb.	.1144@	—
10,000 to 30,000 lbs., kegs	lb.	.1103@	—
car lots, minimum 15 tons, kegs	lb.	.1073@	—
Zinc oxide, American process, commercial, lead free, car lots, bags	lb.	.06½@	—
barrels	lb.	.06¾@	—
less car lots, barrels	lb.	.07 @	—
5 p.c., leaded grades, car lots, bags	lb.	.06¾@	—
barrels	lb.	.06¾@	—
less car lots, barrels	lb.	.07 @	—
bags	lb.	.06¾@	—
10, 20 or 35 p.c. leaded grades, car lots, bags	lb.	.06¾@	—
barrels	lb.	.06¾@	—
less car lots, bags	lb.	.06¾@	—
barrels	lb.	.07 @	—
Zinc oxide, French process, green seal, car lots, bags	lb.	.10¾@	—
barrels	lb.	.10¾@	—
less car lots, barrels	lb.	.10¾@	—
red seal, car lots, bags	lb.	.09¾@	—
barrels	lb.	.09¾@	—
less car lots, barrels	lb.	.09¾@	—
white seal, car lots, barrels,	lb.	.11¾@	—
less car lots, barrels	lb.	.11¾@	—
imported, green seal, ex dock, barrels	lb.	.10¾@	.12
ex warehouse, barrels	lb.	.10¾@	.12¼
Zinc oxide, imported, red seal, ex dock, barrels	lb.	.09¾@	—
ex warehouse, barrels	lb.	.09¾@	—
white seal, ex dock, barrels,	lb.	.12¼@	.13
ex warehouse, barrels	lb.	.12½@	.13¼

*All prices subject to cash discount of 2 percent and are single delivery.

Dry Colors

Blacks

Bone, powdered, barrels	lb.	.05½@	.15
Carbon gas, litho ink qualities, bags	lb.	.22 @	.30
standard rubber, ink and paint qualities, bags, cases	lb.	.12½@	.13
works, bags	lb.	.07½@	—
varnish grade, highest, bags,	lb.	.35 @	.55
medium, bags	lb.	.16 @	.26
Charcoal, common, barrels	lb.	.05 @	—
willow, powdered, barrels	lb.	.06 @	.07
Drop, barrels	lb.	.05½@	.15
Iron oxide, commercial, barrels,	lb.	.04½@	.07
C.P., barrels	lb.	.10 @	.15
Ivory, genuine, barrels	lb.	.30 @	.35
Lampblack, commercial, barrels,	lb.	.09 @	—
grinders' blue-tone, barrels	lb.	.18 @	.20
litho, barrels	lb.	.25 @	—
special high-grade, barrels	lb.	.50 @	—
velvet, barrels	lb.	.12 @	—
Mineral blacks, works, bags	ton.	28.00	@32.00

Blues

Bronze, barrels	lb.	.32 @	.35
Celestial, barrels	lb.	.10 @	.15
Chinese, barrels	lb.	.32 @	.35
Milori, barrels	lb.	.32 @	.35
Prussian, barrels	lb.	.32 @	.35
Soluble, barrels	lb.	.32 @	.35
Ultramarine, barrels	lb.	.06 @	.30

Browns

Sienna, American, burnt, powdered, ton lots, barrels	lb.	.03 @	.04
raw, powdered, ton lots, barrels	lb.	.02¾@	.03½
Italian, burnt, powdered, ton lots, barrels	lb.	.03½@	.12½
raw, powdered, ton lots, barrels	lb.	.03½@	.12½
Spanish, high grades, bulk	lb.	.03 @	—
low grades, bulk	lb.	.02¼@	—
Umber, American, burnt, powdered, car lots, barrels	lb.	.02¾@	.03½
raw, powdered, car lots, barrels	lb.	.02¾@	.03½
Turkey, burnt, powdered, ton lots, barrels	lb.	.04 @	.06
raw, powdered, ton lots, barrels	lb.	.04 @	.06
Vandyke, domestic, ton lots, barrels	lb.	.03 @	.03½
imported, barrels	lb.	.04¼@	.05

Greens

Chrome, C.P., dark, barrels	lb.	.30 @	.33
light, barrels	lb.	.27 @	.31
medium, barrels	lb.	.28 @	.31
oxide, domestic, kegs	lb.	.30 @	.32
barrels	lb.	.27 @	.28½
imported, kegs	lb.	.34 @	.44

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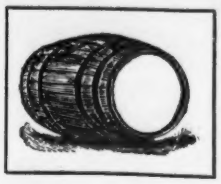

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Commercial, barrels	lb.	.06¼@	.10
Grinders', barrels	lb.	.08 @	.10
Jobbers', barrels	lb.	.06¼@	.07
Limeproof, kegs	lb.	.09¼@	.15
Paris (see Industrial Chemicals).			
Verdigris, casks	lb.	.22 @	.23

Reds

Amaranth (maroon lakes), kegs.	lb.	.50 @	1.50
Alizarin, lake, concentrated, kegs,	lb.	1.50 @	2.10
Carmine, No. 40, 11-lb. tins	lb.	6.50 @	7.00
Crocus martis, purple oxide, barrels	lb.	.03 @	.05
Eosin, kegs	lb.	.65 @	.75
Indian, American, ordinary, barrels	lb.	.03 @	.08
pure, barrels	lb.	.10 @	.14
English, ordinary, barrels	lb.	.06 @	.09
pure, barrels	lb.	.11 @	.14
Lithol toner, kegs	lb.	.85 @	1.10
Mercury oxide, technical, imported, cases, barrels	lb.	2.00 @	2.05
domestic	lb.	2.11 @	—
Oxide, copperas, casks	lb.	.04 @	.14
earth, domestic, barrels	lb.	.02 @	.04½
Spanish, barrels	lb.	.03 @	.04½
Para toner, concentrated, 100-lb. lots, kegs	lb.	.80 @	.80
reduced, 10 percent, kegs	lb.	.10 @	.13
Purple lake, kegs	lb.	.60 @	2.00
Rose pink, barrels	lb.	.15 @	.25
lake, barrels	lb.	.20 @	.30
Scarlet lake, kegs	lb.	.35 @	.90
Toluidin toner, kegs	lb.	1.60 @	1.75
Tuscan, barrels	lb.	.15 @	.40
Venetian, barrels	lb.	.01½@	.05
Vermilion, American, barrels	lb.	.15 @	.25
English quicksilver, kegs or barrels	lb.	1.85 @	2.00

Yellows

Chrome, C.P., ton lots, light, medium, dark, barrels	lb.	.15½@	.16¼
Dutch pink, barrels	lb.	.08 @	.10
Iron oxide, natural, barrels	lb.	.04 @	.05
precipitated, barrels	lb.	.08 @	.12
Mercury oxide, technical, imported, cases, barrels	lb.	2.00 @	2.05
domestic	lb.	2.11 @	—
Ocher, domestic, golden, barrels	lb.	.06 @	.07½
yellow, barrels	lb.	.01½@	.02¾
French, dark, casks	lb.	.02¾@	.02¾
dark, medium, casks	lb.	.03 @	.03¼
extra light, casks	lb.	.03½@	.03¾
light, casks	lb.	.03¾@	.03¾
light medium, casks	lb.	.03¾@	.03¼
medium, casks	lb.	.03 @	.03¼
Zinc yellow, barrels	lb.	.23 @	.26

Colors in Oil

(In 1-lb. cans; ½c. per lb. less in 5-lb. cans. Basis 100-lb. cases)

Blacks

Coach	lb.	.32 @	.34
in japan	lb.	.48 @	.50
Drop	lb.	.32 @	.34
Lampblack	lb.	.44 @	.45

Blues

Chinese	lb.	.60 @	.65
Imitation cobalt	lb.	.52 @	.54
Prussian	lb.	.60 @	.65
Ultramarine	lb.	.46 @	.48

Browns

Sienna, Italian, best grades	lb.	.30 @	.32
Umber, Turkey, best grades	lb.	.25 @	.27
Vandyke, genuine	lb.	.27 @	.29

Greens

Chrome, C.P., in japan	lb.	.48 @	.50
commercial, 25 percent	lb.	.27 @	.29

Reds

Indian	lb.	.31 @	.32
Tuscan	lb.	.41 @	.43
Venetian	lb.	.17 @	.20

Yellows

Chrome, C.P.	lb.	.40 @	.42
Ocher, French	lb.	.21 @	—

Lacquer Materials

Bases

Cellulose acetate, bags	lb.	1.20 @	1.25
Nitrocellulose, ½ sec., dehydrated, works, barrels	lb.	.36 @	—
15-20 sec., dehydrated, works, barrels	lb.	.33 @	—
regular, works, drums	lb.	.40 @	—

Solvents and Diluents

Alcohol, C.D. 1, anhydrous, frt. alld. E. of Miss., car lots, drums	gal.	.63 @	—
less car lots, drums	gal.	.71 @	—
tanks	gal.	.66 @	—
Amyl alcohol, refined from fusel oil, drums	gal.	1.90 @	2.10
from pentane, small lots, works	gal.	2.25 @	—
car lots, works, drums	gal.	1.67 @	—
less car lots, drums	gal.	1.75 @	—
tanks, works	gal.	1.65 @	—
Butyl acetate, domestic, car lots, tanks	gal.	1.40 @	—
car lots, drums	gal.	1.42 @	—
less car lots, drums	gal.	1.45 @	—
imported, drums	gal.	1.35 @	—
tanks	gal.	1.33 @	—
alcohol, works, tanks	lb.	.1775@	.1875
car lots, drums	lb.	.1825@	.1925
less than car lots, drums, less than 100 gals.,	lb.	.1875@	.1975
drums	lb.	.2075@	.2125
cans	lb.	.2225@	—
tate, tanks	lb.	.25 @	—
ins	lb.	.27 @	—
Diacetone alcohol, car lots, drums,	gal.	1.42 @	1.47
500 gallons or more	gal.	1.55 @	—
100 gallons or more	gal.	1.60 @	—
Diethyl carbonate, 90 p.c., drums,	gal.	1.85 @	1.90
Ethyl acetate (see Industrial Chemicals, page 8). anhydrous, car lots, drums,	gal.	1.09 @	1.14
less car lots, drums	gal.	1.12 @	1.17
tanks	gal.	1.07 @	1.12
lactate, drums	lb.	.30 @	.37
oxybutyrate, drums	lb.	.30 @	.35
Ethyleneglycol monobutyl ether, works	lb.	.26 @	.31
monoethyl ether, works, car lots, drums	lb.	.20 @	—
less car lots, drums	lb.	.21 @	.24
tanks	lb.	.19 @	—
monoethyl ether acetate, works, car lots, drums	lb.	.23 @	—
less car lots, drums	lb.	.23½@	.26
tanks	lb.	.22 @	—
Isoamyl alcohol (primary), works, drums	gal.	3.50 @	—
works, cans	gal.	4.00 @	4.50
Methyl acetate, domestic, drums,	gal.	.85 @	.95
imported, drums	gal.	.85 @	.95

Plasticizers and Softeners

Acetanilide, 95 p.c., barrels	lb.	.21 @	—
Acetin, technical, drums	lb.	.32 @	.34
Butyl tartrate, drums	lb.	.55 @	.60
Camphor (see Gums and Waxes).			
Castor oil, blown, car lots, drums	lb.	.14½@	—
less car lots, drums	lb.	.14¾@	—
Diamyl phthalate, drums	lb.	.33 @	—
Dibutyl phthalate, drums	lb.	.27½@	.29
Diethyl phthalate, drums	lb.	.25 @	.29
Ethylmetatoluenesulphonamide, barrels	lb.	.65 @	—
Ethylparatoluenesulphonamide, barrels	lb.	.70 @	—
Paratoluenesulphonanilide, barrels	lb.	.55 @	—
Triacetin, drums	lb.	.37 @	.38
Tricresyl phosphate, drums	lb.	.35 @	.45
Triphenyl phosphate, drums	lb.	.60 @	.65

Varnish Gums

Asphaltum, Barbados (Manjak), A, barrels	lb.	.06½@	.07
AA, barrels	lb.	.13¾@	—
California, barrels	ton.	41.00 @	49.00
Cuban, cases	ton.	60.00 @	150.00
Egyptian, bags	lb.	.15 @	.16
Gilsonite, select, bags, car lots, works	ton.	33.00 @	—
ex warehouse, bags	ton.	55.00 @	60.00
Maltha, barrels	ton.	53.00 @	67.50
Mexican, barrels or drums	ton.	21.00 @	23.00
Texas, barrels or drums	ton.	15.00 @	25.00
Trinidad, com'l., barrels	ton.	23.00 @	35.60
varnish grade, barrels	ton.	115.00 @	120.00
Copal, Congo, dark amber, bags,	lb.	.07½@	.07¾
sorts, bags	lb.	.04¾@	.05¼
water white, bags	lb.	.37 @	.45
E. Indian, pale bold, cases	lb.	.18 @	.18½
nubs, bags	lb.	.14 @	.14¼
chips, bags	lb.	.06 @	.06½
black, bold, scraped, bags	lb.	.06¾@	.07¼
unscraped, bags	lb.	.05½@	.06
nubs and chips, bags	lb.	.05¼@	.05½
Manila, bright amber, cases,	lb.	.15 @	.15¼
dark, hard, cases	lb.	.16 @	.17
pale, chips, bags	lb.	.10½@	.10¾
nubs, bags	lb.	.14¾@	.15
standard, sorts, bags	lb.	.09½@	.10
Pontianak, genuine, selected bold, bags	lb.	.17¼@	.17½
chips, small, bags	lb.	.13 @	.13½
split, bags	lb.	.16 @	.16½
nubs, No. 1, bags	lb.	.14 @	.14¾
mixed, cases	lb.	.12½@	.13
Dammar, Batavia, cases	lb.	.22¼@	.22¾
seeds, cases	lb.	.16 @	.16½
Singapore, No. 1, cases	lb.	.29½@	.30
No. 2, cases	lb.	.23 @	.23½
No. 3, bags	lb.	.12 @	.12½
Elemi, No. 1, cans	lb.	.12½@	.13
No. 2, cans	lb.	.11½@	.12
No. 3, cans	lb.	.10½@	.11
Kauri, bright, dust, cases	lb.	.16 @	.17
brown, BX, cases	lb.	.48 @	.50
B 1, cases	lb.	.32 @	.35
B 2, cases	lb.	.21 @	.24
B 3, cases	lb.	.15½@	.17
chips, extra, cases	lb.	.22 @	.24
ordinary, cases	lb.	.10½@	.12
dust, cases	lb.	.06 @	.10
pale, fine, cases	lb.	.75 @	1.50
No. 1, cases	lb.	.48 @	.55
No. 2, cases	lb.	.30 @	.35
No. 3, cases	lb.	.14 @	.17
dust, cases	lb.	.07 @	.08
white, chips, ord., cases	lb.	.19 @	.23
dust, ordinary, cases	lb.	.11½@	.14

Artificial Resins

Paracoumarone resin, car lots, drums	lb.	.07 @	.12
Ester gum, dark, barrels	lb.	.08 @	.08½
light, barrels	lb.	.08½@	.09

Other Paint Materials

Bauxite, mines, bulk	ton.	5.00 @	8.00
Bronze powder, aluminum, bulk,	lb.	.60 @	1.20
gold, bulk	lb.	.55 @	1.25
Casein, domestic, 20-30 mesh, car lots, bags	lb.	.15¾@	.16
80-100 mesh, car lots, bags	lb.	.17 @	.17¼
imported, fine ground, car lots, bags	lb.	.17 @	—
Chalk, grinders', powdered, barrels	ton.	12.00 @	—
China clay, domestic, lump, mines, bulk	ton.	8.00 @	9.00
powdered, bags	ton.	10.00 @	15.00
imported, lump, bulk	ton.	15.00 @	25.00
powdered, barrels	lb.	.03 @	.03½
Cobalt oxide, black, kegs	lb.	2.10 @	2.20
Copper oxide (see Industrial Chemicals).			
Feldspar, powdered, works, bulk,	ton.	15.00 @	21.00
Fuller's earth, domestic, mines, bulk	ton.	15.00 @	20.00
imported, powdered, car lots, bags	ton.	25.00 @	30.00
Graphite, flake, barrels	lb.	.04 @	.09
ground, barrels	lb.	.04 @	.07
Infusorial earth, white, bags	ton.	25.00 @	—
Lime sulphide, luminous, tins	lb.	1.00 @	1.25
Magnesia silicate (see talc).			
Manganese ore, powd. or gran., 75@80 p. c., barrels	lb.	.03 @	.03½
80@85 p.c., barrels	lb.	.04 @	.04½
85@88 p.c., barrels	lb.	.05 @	.05½
Marble flour, bags	ton.	14.00 @	15.00
Mica, dry ground, works, bags.	ton.	65.00 @	80.00
wet ground, works, bags	ton.	110.00 @	115.00
Naphtha, v.m.&p., deodorized, barrels	gal.	.20 @	—
Pitch, hardwood, works, one-time container	ton.	40.00 @	45.00
Plaster of paris, bags	ton.	23.00 @	29.00
barrels	100 lbs.	3.40 @	3.50
dentists', barrels	100 lbs.	3.75 @	—
Pumice stone, lump, casks	lb.	.05 @	.07
powdered, pure, barrels	lb.	.02¼@	.04
Putty, commercial, tube	lb.	.03¼@	—
linseed oil, kegs	lb.	.05½@	—
Rottenstone, domestic, mines, bulk	ton.	23.50 @	28.00
imported, barrels	lb.	.05 @	.07
powdered, barrels	lb.	.02½@	.04½
selected, lump, barrels	lb.	.10 @	.12
Silica, fine ground, works, bulk. water floated, works, bulk	ton.	22.00 @	30.00
extra (400 mesh, f.o.b. works, bulk	ton.	32.00 @	40.00
Smalt, blue, barrels	lb.	.06 @	.07
extra velvet black, barrels	lb.	.05 @	.06
Soapstone, powdered, f.o.b. mines, bags	ton.	15.00 @	22.00
Talc, American, Eastern, f.o.b. mines, bulk	ton.	16.00 @	18.00
French, bags	ton.	18.00 @	22.00
high-grade, bags	ton.	40.00 @	45.00
Italian, bags	ton.	50.00 @	55.00
Talc, fibrous, car lots, works, bags	ton.	15.00 @	—
spot, car lots, bags	ton.	20.00 @	—
less car lots	ton.	25.00 @	—
Western, mines, bulk	ton.	18.00 @	25.00
Terra alba, Am. No. 1, mills, bags or barrels	100 lbs.	1.15 @	1.75
No. 2, bags or barrels	100 lbs.	1.50 @	2.00
imported, bags	lb.	.02 @	.02¼
Tripoli, car lots, bags	lb.	.01¾@	.02
Whiting, domestic, bags or barrels	100 lbs.	1.00 @	—
English cliffstone, bags	100 lbs.	1.50 @	—
paris white, bags	100 lbs.	1.25 @	1.50
imported, commercial, bags	100 lbs.	.85 @	1.00
ton lots, bags	ton.	14.00 @	—
ex dock, car lots, bags	ton.	12.00 @	16.00
gilders', bolted, bags	100 lbs.	1.25 @	1.35
extra bolted, bags	100 lbs.	1.40 @	1.50

Driers

(Packed in Barrels)

Aluminum, oleate, precip.	lb.	.21 @	.21¼
palmitate, precipitated	lb.	.28 @	.28½
resinate, precipitated	lb.	.16½@	.17
stearate, precipitated	lb.	.24 @	.24½
Calcium, resinate, precipitated,	lb.	.16 @	.16¼
stearate, precipitated	lb.	.24 @	.24½
Cobalt, acetate	lb.	.85 @	.90
carbonate	lb.	1.75 @	1.85
hydrate	lb.	2.25 @	2.30
linoleate, paste	lb.	.42 @	.42½
solid	lb.	.49 @	.50
resinate, fused, A	lb.	.12½@	—
1 p. c.	lb.	.11¾@	—
2 p. c.	lb.	.16 @	.16¼
3 p. c.	lb.	.17 @	.17¼
precipitated	lb.	.42 @	.42½
Copper oleate, precipitated	lb.	.28 @	.28½
resinate, precipitated	lb.	.18 @	.19
stearate, precipitated	lb.	.30½@	.31
Lead linoleate, solid	lb.	.26 @	.26½
resinate, precipitated	lb.	.18 @	.18½
fused	lb.	.09 @	.10
Manganese borate, high grade,	lb.	.19 @	—
technical	lb.	.15 @	.16
linoleate	lb.	.21 @	.21½
oxide, 85 percent	lb.	.04 @	.04½
resinate, fused	lb.	.08½@	.08¾
precipitated	lb.	.13½@	.14½
sulphate, anhydrous	lb.	.08¼@	.08½
Zinc resinate, precipitated	lb.	.14¼@	.14½
fused, dark, hard	lb.	.08¾@	.08½
stearate, precipitated	lb.	.22½@	.23

Glues

Common, bone, barrels	lb.	.17 @	.18
Fish, liquid, barrels	gal.	1.90 @	2.35
French, barrels	lb.	.21 @	.36
Hide, cabinet, high grade, barrels	lb.	.24 @	.28
low grade	lb.	.21 @	.25
White, extra, barrels	lb.	.22 @	.29
medium, barrels	lb.	.21 @	.27

Metal Leaf

(In packages of 20 books—500 leaves)

Aluminum, 5½x5½ in.	per pkg.	1.50 @	—
Composition, 5½x5½ in.	per pkg.	1.50 @	—
Gold, XX deep, 3⅜x3⅜ in.	per pkg.	10.50 @	12.00
imported	per pkg.	10.25 @	10.50
3⅜x3⅜ in.	per pkg.	11.50 @	13.00
4 x4 in.	per pkg.	14.50 @	14.70
3⅜x5⅛ in.	per pkg.	17.50 @	18.50
3⅛x5⅝ in.	per pkg.	18.25 @	19.20
Silver, 3⅜x3⅜ in.	per pkg.	2.25 @	2.75

(Note:—All of the above quotations apply to domestic leaf, unless otherwise specified.)

Window Glass

United inches	Bracket sizes		Single AA	Single A	Single B
25	6x8 to 10x15		$24.00	$20.00	$19.00
34	11x14 12x13 to 14x20		25.00	21.00	20.00
40	10x26 to 16x24		27.00	22.50	21.00
50	18x22 20x20 to 20x30		28.00	23.70	22.00
54	15x26 to 24x30		29.00	24.50	22.50
60	20x28 to 24x36		30.00	26.00	23.25
70	20x34 28x32 30x30 to 30x40		32.00	28.75	25.25
80	32x33 34x36 to 30x50		36.50	32.25	28.75
25	6x8 to 10x15		$32.00	$28.00	$26.50
34	11x14 12x13 to 14x20		25.00	31.00	29.00
40	10x26 to 10x24		39.00	34.00	31.00
50	18x22 20x30 to 20x30		42.00	37.00	34.50
54	15x36 to 24x36		43.00	38.00	35.00
60	26x28 to 24x36		44.00	39.00	35.50
70	26x34 28x32 30x30 to 30x40		47.00	42.00	38.00
80	32x33 34x36 to 30x50		51.00	46.00	41.50
84	30x32 to 30x50		52.00	47.00	42.50
90	30x56 to 34x56		55.00	50.00	46.00
94	34x58 to 34x60		56.00	51.00	47.00
100	36x60 to 40x60		66.00	60.00	56.00

The schedule of discounts applying to the above quotations follow:—

For Zones B, C, D, E and F:—Single strength, "B" quality, 25-inch bracket sizes, 88 percent; all brackets above this size, 89 percent; double strength, "B" quality, all brackets, 88 percent.

For "A" quality, single strength and double-strength glass, in all of the above-named zones, the discounts will be two points higher than those named for "B" quality.

All prices on "Off quality" glass, which includes Fourth and "C" qualities, have been withdrawn by the manufacturers and will be quoted only upon application.

Prices for flat window glass in Zones D and E are not guaranteed against declines up to date of shipment, as they formerly were.

In Zones B, C and F prices for flat window glass for each of these zones are guaranteed against decline up to date of shipment.

The territory embraced in each zone is defined by manufacturers as follows:—

Zone A—Comprises the States of California, Oregon and Washington.

Zone B—Comprises the States of New Mexico, Arizona, Colorado, Utah, Nevada, Wyoming, Idaho and Montana.

Zone C—Comprises the States of Texas, Oklahoma, Kansas, Arkansas and Louisiana.

Zone D—Comprises the New England States.

Zone E—Comprises all territory within 100 miles of the Atlantic or Gulf Seaboard outside of New England, Louisiana and Texas.

Zone F—Comprises the remainder of the United States not included in Zones A, B, C, D and E.

Hereafter the following boxing charges will apply in all zones except Zone A, on all orders for single-strength and double-strength class:—First three bracket sizes, 10c. to 50-inch box; above sizes, up to and including 100 united inches, 20c. per 50-inch box; sizes over 100 united inches, 40c. per 100-inch case; for glass packed 100 inches to the case the charges will be double the amount charged for the same size packed 50 inches to the box.

The following fractional cutting charges will apply:—Single strength, 1 fraction, 25c. per 50-inch box; 2 fractions, 50c. per 50-inch box; double strength, 1 fraction, 35c. per 50-inch box; 2 fractions, 70c. per 50-inch box.

Winter Pressed Pure Menhaden Fish Oil

Refrigerated and cold pressed by most improved method.
(Not settled or racked off.)
Light color and low free fatty acid content.
Especially adapted for the paint and varnish and linoleum industries.
Superior uniform quality.
We deliver as per sample submitted.
Produced from selected crude only and absolutely pure.
Inquiries invited *prompt or future shipments* in barrels, carloads or tank car deliveries.

Save the surface with

Linstead Oil

A special refined, treated and processed oil of the oxidized or *heavy body* type produced from Pure Menhaden Fish Oil. To reinforce your Linseed Oil:

1. Has strong protective and perfect drying properties.
2. It has flexibility.
3. Mixes permanently with all solvents.
4. It is a high type paint vehicle.
5. Holds pigments permanently in suspension.
6. Can be reduced with solvents and used as a grinding medium for pigments.
7. Contains no adulterations or thinners.

ATLAS REFINERY

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Complete and Convenient Reference Guide for Sales Executives and Advertisers to Manufacturing Consumers of Chemicals, Oils and Related Products

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Ninety-first Recapitulative Instalment

(Parenthetical references are to the numbers of patents in the United States or other countries, as designated)

2-Amino-5-acetyl-4'-oxy-3'-carboxydiphenylsulphone

Dye

Starting point (B288788) in making azo dyestuffs with—
- Acetoaceticanilide-4-carboxylic acid
- Betaethylaminonaphthalene - 6 - sulphonic acid
- Betaethylaminonaphthalene - 7 - sulphonic acid
- Betamethylaminonaphthalene - 6-sulphonic acid
- Betamethylaminonaphthalene-7 - sulphonic acid
- Betamethylamino-8- naphthol-6-sulphonic acid
- Betaparatolylamino - 8 - naphthol - 6-sulphonic acid
- Diacetoacetylorthotoluidin
- Ethylbenzylanilin
- Ethylparasulphobenzylanilin
- 2:6-Naphthylaminesulphonic acid
- 2:7-Naphthylaminesulphonic acid
- 3:3-Oxynaphthoicanilide
- 2:3-Oxynaphthoicnaphthalide
- 2:3-Oxynaphthoicphenetidide
- 2:3-Oxynaphthoictoluidide
- 2:3-Oxynaphthoicxylidide
- Sodium methylketolsulphonate
- Tetrahydronaphthalene (tetralin) from naphthalene
- Various chemical bodies from nitro bodies, ketones, phenols, aldehydes and hydrocarbons by reduction in the liquid state.

Reagent in various chemical processes

Construction

Ingredient of—
- Special compositions used for hardening gypsum and stone

Dye

Reagent and substratum in making—
- Various color lakes

Insecticide

Reagent (G432399) in making—
- Insecticides with the aid of copper sulphate

Paper

Sizing agent

Resins and Waxes

Reagent in making—
- Phenol condensation products

Textile

Dyeing and Printing

Mordant

Finishing

Ingredient of—
- Fireproofing compositions
- Waterproofing compositions

Manufacturing

Reagent in making—
- Viscose rayon impervious to water

Water and Sanitation

Ingredient (US1604124) of—
- Water-softening compositions

1:4-Amino-oxyanthraquinone

(1:4 - Amino - oxyanthrachinon, 1:4 - Aminohydroxyanthraquinone)

Chemical

Starting point in making various intermediates

Dye

Starting point (B282854) in making dyestuffs with—

Acetaldehyde	Hexaldehyde
Benzaldehyde	Paraformaldehyde
Butyraldehyde	Pentaldehyde
Cinnemaldehyde	Propionaldehyde
Crotonaldehyde	Succinaldehyde
Formaldehyde	
Heptaldehyde	

Benzaldehyde-2:4-disulphonic Acid

(Acide de Benzaldehyde-2:4-disulfonique, Benzaldehyd-2:4-disulfonsaeure)

Chemical

Starting point in making various intermediates

Dye

Starting point (B289092) in making diaminotriphenylmethane dyestuffs with—
- 2-Isoamylamino-1-allylbenzene
- 2-Isoamylamino-1-amylbenzene
- 2-Isoamylamino-1-butylbenzene
- 2-Isoamylamino-1-ethylbenzene
- 2-Isoamylamino-1-isoallylbenzene
- 2-Isoamylamino-1-isoamylbenzene
- 2-Isoamylamino-1-isobutylbenzene
- 2-Isoamylamino-1-isopropylbenzene
- 2-Isoamylamino-1-methylbenzene
- 2-Isoamylamino-1-pentylbenzene
- 2-Isoamylamino-1-propylbenzene
- 2-Isopropylamino-1-allylbenzene
- 2-Isopropylamino-1-amylbenzene
- 2-Isopropylamino-1-butylbenzene
- 2-Isopropylamino-1-ethylbenzene
- 2-Isopropylamino-1-isoallylbenzene
- 2-Isopropylamino-1-isoamylbenzene
- 2-Isopropylamino-1-isobutylbenzene
- 2-Isopropylamino-1-isopropylbenzene
- 2-Isopropylamino-1-methylbenzene
- 2-Isopropylamino-1-pentylbenzene
- 2-Isopropylamino-1-propylbenzene
- 2-Mono-1'-methylpropylamino-1-methylbenzene

Dye

Starting point in making—
- Sulpho rhodamine B
- Xylene red B

Betanaphtholisopropyl Ether

(Betanaphtolisopropyläther, Ether Betanaphtholisopropylique, Ether de Betanaphtholisopropyle)

Chemical

Starting point (B277098) in making derivatives with—

Benzyl chloride	Phenyl chloride
Naphthyl chloride	Tolyl chloride
	Xylyl chloride
Phthalyl chloride	

Cadmium Chromate

(Cadmiumchromat, Chromsaeurescadmium, Chromsaeureskadamium, Chromate Cadmique, Chromate de Cadmium, Kadmiumchromat)

Ceramics

Pigment for coloring—
- Fine chinaware and porcelains

Chemical

Reagent (B281307) in making zeolite catalysts used in making—
- Acetaldehyde from ethyl alcohol
- Acetic acid from ethyl alcohol
- Alcohols from aliphatic hydrocarbons
- Aldehydes and acids by the oxidation of orthochlorotoluene, parachlorotoluene, orthobromotoluene, parabromotoluene, dichlorotoluenes, chlorobromotoluenes, nitrotoluenes, chloronitrotoluenes, and bromonitrotoluenes
- Alphanaphthaquinone from naphthalene
- Anthraquinone from anthracene
- Benzaldehyde and benzoic acid from toluene
- Benzoquinone from phenanthraquinone
- Chloroacetic acid from ethylenechlorohydrin
- Diphenic acid from ethyl alcohol
- Fluorenone from fluorene
- Formaldehyde from methanol or methane
- Hemimellitic acid from acenaphthene
- Maleic acid and fumeric acid from benzene, toluene, phenol or tar acids, or benzoquinone or phthalic anhydride
- Naphthaldehyde acid, acenaphthaquinone or bisacenaphthylideneione from acenaphthene or acenaphthylene
- Naphthalic anhydride
- Phenanthraquinone from phenanthrene
- Phthalic anhydride from naphthalene
- Salicylic aldehyde or salicylic acid from cresol
- Vanillin or vanillic acid from eugenol or isoeugenol

Paint and Varnish

Pigment in making—
- High-grade paints and enamels

Cadmium Oxide

(Cadmiumoxyd, Kadmiumoxyd, Oxyde Cadmique, Oxyde de Cadmium)

Ceramics

Pigment for coloring—

Chinaware	Potteries
Porcelains	

Chemical

Reagent (B281307) in making zeolite catalysis used in making—
- Acetaldehyde from ethyl alcohol
- Acetic acid from ethyl alcohol
- Alcohols from aliphatic hydrocarbons
- Aldehydes and acids by the oxidation of orthochlorotoluene, parachlorotoluene, orthobromotoluene, parabromotoluene, dichlorotoluenes, chlorobromotoluenes, nitrotoluenes, chloronitrotoluenes, bromonitrotoluenes
- Alphanaphthaquinone from naphthalene
- Anthraquinone from anthracene
- Benzaldehyde and benzoic acid from toluene
- Benzoquinone from phenanthraquinone
- Chloroacetic acid from ethylenechlorohydrin
- Diphenic acid from ethyl alcohol
- Fluorenone from fluorene
- Formaldehyde from methanol or methane
- Hemimellitic acid from acenaphthene
- Meleic acid and fumeric acid from benzene, toluene, phenol, or tar acids, or benzoquinone or phthalic anhydride
- Naphthaldehydic acid, acenaphthaquinone or bisacenaphthylideneione from acenaphthene or acenaphthylene
- Naphthalic anhydride
- Phenenthraquinone from phenenthrene
- Phthalic anhydride from naphthalene
- Salicylic aldehyde or salicylic acid from cresol
- Vanillin or vanillic acid from eugenol or isoeugenol

Starting point in making—
- Cadmium salts

5:7-Dichloro-6-amino-oxythionaphthene

(5:7-Dichlor-6-amino - oxysulphonaphten, 5:7-Dichlor - 6 - amino-oxythionaphten, 5:7-Dichloro-6-amino-oxysulphonaphthene)

Dye

Starting point (B285389) in making 2-thionaphthene - 3 - indoleindigoid dyestuffs with—
- 5:7-Dibromoisatin
- 5:7-Dichloroisatin
- 5:7-Di-iodoisatin

3:5-Dimethyl-4-chlorophenylthioglycollic Acid

(Acide de 3:5-Dimethyle-4-chlorophenylesulfoglycollique, Acide de 3:5-Dimethyle - 4 - chlorophenylethioglycollique, 3:5 - Dimethyl-4-chlorphenylthiogykolsaeure)

Dye

Starting point (B271906) in making—
- Thioindigoid dyestuffs

Hexahydrocarbazole

Dye

Starting point (B285382) in making indophenols and leucoindiophenols with 2:5-Dichloro-4-aminophenol—
- Dichloroquinonechloroimide
- Para-aminophenol
- Quinonebromoimide
- Quinonechloroimide
- Quinoneiodoimide

2-Hydroxy-9-methyl-alphanaphthacarbazole

Chemical

Starting point in making various intermediates

Dye

Starting point (F610211) in making dyestuffs with—
- 4-Nitro-orthotoluidin

Potassium 1-Chloro-2:6-dinitrobenzene-4-sulphonate

(Alphachloro - 2:6 - dinitrobenzene-4-sulfonate de Potasse, 1-Chloro-2:6-dinitrobenzene - 4 - sulfonate Potassique, 1-Chlor-2:6-dinitrobenzol-4-sulfonsaeureskalium, Kalium - 1-chlor-2:6-dinitrobenzol-4-sulfonat)

Dye

Starting point (B285504) in making nitro dyestuffs with—

Benzidin	4:4'-Diamino-2-nitrodiphenyl
2:4'-Diaminodiphenyl	Orthodianisidin

Potassium Glycocholate

(Glycocholate Potassique, Glycocholate de Potasse, Glycocholate de Potassium, Glykocholsaeureskalium, Glykocholsaeurespotasche, Kaliumglykocholat)

Chemical

Reagent (B282356) in making antiparasitic agents with—
- Dihydrocuprein ethyl ether
- Dihydrocuprein ethyl ether hydrochloride
- Dihydrocuprein isoamyl ether
- Dihydrocuprein isoamyl ether hydrochloride
- Dihydrocuprein normal octyl ether
- Dihydrocuprein normal octyl ether hydrochloride
- Dihydroquinone

Sodium Aluminate

(Aluminate Sodique, Aluminate de Sodium, Aluminate de Soude, Natriumaluminat)

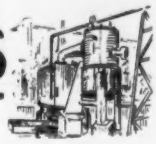
Ceramics

Reagent in making various products

Chemical

Ingredient (B286212) of catalytic mixtures used in making—
- Alcohols from acetone and ketones
- Cyclohexanol from phenol
- Ethyl alcohol from acetaldehyde

Naval Stores



Moderate Advance in Primary and Local Prices —Heavy Rains in Southeast and Smaller Receipts Expected—Fair Trade Here

Business in the local market for naval stores continued on a conservative scale last week. Orders for turpentine and rosin were received in a fair volume but consumers showed little disposition as a rule to purchase far in advance of requirements. The trend of turpentine was upward, while rosin showed irregularity.

Quotations on turpentine at Savannah and Jacksonville showed an advance at one time of about 2c. per gallon. A strengthening factor in primary centers was the prospect, according to some, of a further decrease in the crop movement as a result of heavy rains in the Southeast. Cloudbursts were reported in parts of Georgia and the Carolinas. On one day of the week Savannah had a rainfall of 11½ inches, and Charleston 1¼ inches. Floods and overflows were expected to check operations in the woods, and there was a tendency in some quarters to revise estimates of the probable decrease in production for the season.

There was a fairly active demand for turpentine in Southern markets from domestic buyers and reports were also current of an improvement in the foreign inquiry. Receipts in the three principal markets in the South from the opening of the season to the middle of the current month were about 40,000 barrels smaller than in the corresponding period last season. Stocks in those markets, however, are still larger than at this time last year, though the excess is not as large as recently.

Rosin showed irregularity in Southern markets, most grades being lower at one time with an upturn later, net changes for the week being moderate. On the decline demand increased, stimulated by bad weather and expectations of a decrease in the movement from the interior to the seaboard. Also there were indications, according to some, that consumers were inclined to provide for future requirements at current values.

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Pensacola Turpentine

PENSACOLA, Sept. 18, 1928.

The market for turpentine retained a steady tone. The crop movement was moderate. Following is a record of the market for the week:—

	Barrels		
	Receipts.	Shipments.	Stocks.
Wednesday	188	282	21,368
Thursday	103	120	21,351
Friday	299	251	21,369
Saturday	122	119	21,372
Monday	44	91	21,325
Tuesday	416	161	21,588

Chicago Turpentine

CHICAGO, Sept. 21, 1928.

A better tone developed in the Chicago turpentine market in the last few days, with prices working up about 2 cents a gallon for the week. Buying was of fair volume on general expectation of somewhat higher prices, on the part of both wholesale and consumer interests. Ruling quotations per gallon, at the close of business, were:—Five-drum lots, 54c.; single drums, 59c.; five-barrel lots, 59c.; single barrels, 64c.

English Turpentine Prices

Quotations on turpentine in London and Liverpool during last week were:—

	Per cwt. In barrels—			
	London.		Liverpool.	
	s.	d.	s.	d.
Saturday	41	9	43	3
Monday	41	9	43	3
Tuesday	41	9	43	3
Wednesday	42	3	43	9
Thursday	42	6	44	0
Friday	42	9	44	0

Current prices on naval stores, formerly printed on page 4, are now printed at the end of this market report.

London Turpentine Stocks

Stocks of American turpentine in London September 20 were 32,336 barrels.

Rosin

Changes in rosin prices for the week were moderate, the tone being easier at one time and firmer later on. At the close of the week quotations were $9.50 to $10.95 per unit, according to grade, against $9.35 to $10.90 at the previous week end. Demand here was fair, though consumers were not inclined to anticipate to any extent. Southern advices pointed to a further shrinkage in receipts owing to bad weather in parts of the Southeast, extremely heavy rains being reported. Wood rosin was advanced by one maker to $7.25 per unit, f.o.b. Southern shipping points, effective September 24.

Turpentine

Demand for turpentine in the local market was fair last week, much of the purchasing still being limited to moderate quantities. The tone of the market was firmer, influenced by an upturn in prices in Southern markets. At the close of the week quotations here were 54½c. to 55½c. per gallon, against 52c. to 53c. per gallon at the previous week end. The improvement in Southern markets was attributed by some to bad weather. Extremely heavy rains were reported in some sections and a decrease in receipts was expected. Steam distilled wood turpentine was advanced by one producer to 50c. per gallon, f.o.b. distributing points, effective September 24.

Savannah Turpentine

SAVANNAH, Sept. 21, 1928.

Demand for turpentine was fairly active and the market had a firmer tone. Following is a record of the market for the week:—

		Barrels		
	Price per gal.	Sales.	Receipts.	Shipments.	Stocks.
Saturday	$0.46½	262	511	...	25,914
Monday	.46½	814	410	2,084	24,240
Tuesday	.47¼	414	962	68	25,134
Wednesday	.47	425	814	...	25,948
Thursday	.48	446	884	215	26,617
Friday	.48½	277	406	372	26,841

Jacksonville Turpentine

JACKSONVILLE, Sept. 21, 1928.

Price changes in the market for turpentine were narrow. Trade was fairly active. Following is a record of the market for the week:—

		Barrels		
	Price per gal.	Sales.	Receipts.	Shipments.	Stocks.
Saturday	$0.46½	...	489	105	32,176
Monday	.46¾	501	529	705	32,000
Tuesday	.47	368	425	125	32,300
Wednesday	.47½	84	470	113	32,857
Thursday	.48	181	216	1,032	31,841
Friday	.48½	134	453	2,210	30,084

Savannah Rosin

SAVANNAH, Sept. 21, 1928.

All gradee of rosin were in demand and the market was steady. Following is a record of the market for the week:—

	Price per unit—					
	Sat.	Mon.	Tues.	Wed.	Thurs.	Fri.
B	$8.05	$8.05	$7.90	$7.90	$8.17½	$8.10
D	8.05	8.05	7.90	7.90	8.17½	8.10
E	8.05	8.05	7.90	7.90	8.17½	8.10
F	8.05	8.05	7.90	7.90	8.17½	8.10
G	8.05	8.05	7.90	7.90	8.17½	8.10
H	8.05	8.05	7.90	7.90	8.17½	8.15
I	8.05	8.05	7.95	7.95	8.17½	8.15
K	8.05	8.05	7.95	7.95	8.17½	8.15
M	8.10	8.10	8.05	8.05	8.20	8.20
N	8.20	8.20	8.20	8.20	8.35	8.20
W. G.	9.25	9.25	9.10	9.10	9.35	9.25
W. W.	9.35	9.35	9.25	9.25	9.45	9.35
X	9.35	9.35	9.25	9.25	9.45	9.35
	Barrels					
Sales	1,414	972	1,965	...	1,038	1,055
Receipts	1,939	1,289	2,934	2,658	2,970	1,214
Shipments	...	7,220	375	...	3,589	1,059
Stocks	136,634	130,703	133,262	135,928	135,309	135,459

Jacksonville Rosin

JACKSONVILLE, Sept. 21, 1928.

Changes in quotations on rosin were within moderate limits, the tone of the market being steady. Following is a record of the market for the week:—

	Price per unit—					
	Sat.	Mon.	Tues.	Wed.	Thurs.	Fri.
B	$8.05	$8.05	$8.05	$8.05	$8.17½	$8.17½
D	8.05	8.05	8.05	8.05	8.17½	8.17½
E	8.05	8.05	8.05	8.05	8.17½	8.20
F	8.05	8.05	8.05	8.05	8.17½	8.20
G	8.05	8.05	8.05	8.05	8.17½	8.20
H	8.05	8.05	8.05	8.05	8.17½	8.20
I	8.05	8.05	8.05	8.05	8.17½	8.20
K	8.05	8.05	8.05	8.05	8.17½	8.22½
M	8.10	8.10	8.10	8.10	8.20	8.25
N	8.20	8.20	8.20	8.20	8.35	8.40
W. G.	9.25	9.25	9.25	9.25	9.35	9.45
W. W.	9.35	9.35	9.25	9.35	9.45	9.60
X	9.40	9.40	9.40	9.35	9.45	9.60
	Barrels					
Sales	1,015	905	346	388	1,585	1,002
Receipts	1,342	1,687	1,633	2,005	801	2,049
Shipm'ts	4,460	156	269	100	66	1,611
Stocks	85,410	86,941	88,374	90,279	91,014	91,452

Valuable information on Imports and Exports of Naval Stores is given in port lists beginning on page 5.

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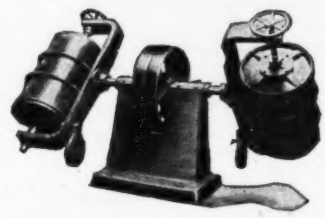

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The Ambassador
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Pensacola Rosin

PENSACOLA, Sept. 18, 1928.

The movement of rosin was moderate with the market steady. Following is a record of the market for the week:—

	Barrels					
	Wed.	Thurs.	Fri.	Sat.	Mon.	Tues.
Receipts ..	456	242	284	385	99	1,044
Shipments.	425	825	650	450	100	522
Stocks ...	26,256	25,673	25,307	23,241	25,240	25,762

Chicago Rosin

CHICAGO, Sept. 21, 1928.

While there has been only a moderate amount of buying, sentiment in the rosin market here the last few days has been mainly to the effect that prices might work higher, due to the effects of the storm in the Southeastern areas. At that, prices were higher at mid-week than a week previous. Ruling quotations per unit of 280 pounds at the close of business last night were:—B grade, $10.40; G grade, $10.40; M grade, $10.50; W.W. grade, $11.75.

London Rosin Prices

Quotations on rosin per hundredweight in barrels in London during last week were:—

	Common.		Water white.		Type G.	
	s.	d.	s.	d.	s.	d.
Saturday	20	9	26	0	20	9
Monday	20	9	26	0	20	9
Tuesday	20	9	26	0	20	9
Wednesday	20	9	26	0	20	9
Thursday	20	9	26	0	20	9
Friday	20	9	26	0	20	9

Liverpool Rosin Prices

Quotations on common rosin in Liverpool last week were as follows:—

	Per cwt. In barrels.	
	s.	d.
Saturday	21	3
Monday	21	3
Tuesday	21	3
Wednesday	21	3
Thursday	21	3
Friday	21	3

Other Naval Stores

Pine Oil.—Demand was fairly active with purchasing generally of a conservative character, few consumers being inclined to anticipate. The market remained steady.

Pitch.—The market had a firm tone. There was no snap to business, but an increase was noted in the volume of inquiries for moderate quantities.

Rosin Oil.—There was an absence of new developments of importance, the market being steady. A fair demand was noted from local and outside buyers.

Tar.—A steady tone prevailed and quotations were maintained at previous levels. There was a fair demand for both kiln burned and retort.

Current Prices

(For late price changes, see page 2)

Turpentine spirits, gum ex-yard, barrels	gal.	.54½@	.55½
wood, destructive distillation, barrels	gal.	.35	Nom.
steam distilled, drums	gal.	.49 @	.50
Rosin (prices on spot per unit of 280 lbs.)—			
gum, B, barrels		9.50 @	—
D, barrels		9.50 @	—
E, barrels		9.50 @	—
F, barrels		9.55 @	—
G, barrels		9.60 @	—
H, barrels		9.60 @	—
I, barrels		9.60 @	—
K, barrels		9.65 @	—
M, barrels		9.70 @	—
N, barrels		9.80 @	—
W.G., barrels		10.75 @	—
W.W., barrels		10.95 @	—
wood		8.05 @	—
f.o.b. works		7.25 @	—
Gum thus, barrels		19.00 @	—
strained, barrels		19.00 @	—
Pine oil, steam distilled, straw color, barrels	gal.	.63 @	.64
water white, barrels	gal.	.66 @	.67
Pitch, barrels	bbl.	8.00 @	8.50
Rosin oil, first rectified, drums	gal.	.57 @	—
second rectified, drums	gal.	.60 @	—
third rectified, drums	gal.	.68 @	—
Tar, kiln burned, barrels	bbl.	12.50 @	13.00
retort, barrels	bbl.	12.50 @	13.00
Tar oil, commercial, barrels	gal.	.42 @	—
refined, barrels	gal.	.50 @	—

L. R. Potter, vice-president of the Columbia Naval Stores Company, Savannah, who spent about a month at Clifton Springs, for his health, returned to the South September 20.

Production of naval stores in Finland is a declining industry. The number of plants has been reduced from twenty-nine in 1924 to about one-half that number. The value of production has decreased more than one-third in the past three years.

L. N. Bent, C. A. Bigelow, C. A. Higgins, C. C. Hoopes, and G. M. Norman have been made members of the board of directors of the Hercules Powder Company, increasing the number to twelve. R. H. Dunham has been elected chairman of a newly created executive committee, and E. G. Rheuby heads a new finance committee.

A new paper-sizing process under experimentation in England consists in beating the pulp with a solution obtained by passing a cold solution of caustic soda over broken rosin, with subsequent treatment with alum. Particulars of the process can be obtained from the Chemical Division, Bureau of Foreign and Domestic Commerce, Washington.

Chicago Paint Technicians Hear How to Grind Better

CHICAGO, Sept. 18, 1928.

Uniformity of product is more important to the paint manufacturer than increased production or even decreased costs, and he must grind scientifically and according to formula to achieve this basis of production, it was declared by Myles Higgins, Philadelphia, in a discussion of pigment grinding and improved equipment, at the first Fall meeting of the Paint Superintendents' Club of Chicago at the City Club September 17. The meeting was well attended.

Pigment grinding today is done largely by rule of thumb, guess work and experiment, Mr. Higgins told the members. He was discussing a new kind of mill, and he declared that in spite of common knowledge that the better the grinding the better the result, until very recently the only improvements in parallel roller mills consisted of a water cooling system for the rolls, spiral or bevel gears, and new type bearings. He asserted that pigment grinding can be reduced to any known standards of time, cost, and fineness of material, and the desired results obtained at all times by following a laboratory chart.

Robert Knox, general chairman in charge of plant research, presented a paper which the club will contribute to the federation convention in October. V. D. Carlisle, chairman of the program committee, introduced the speakers. President Paulsen had charge of the meeting.

H. J. Rolls Is Champion Paint Golfer of Buffalo

H. J. Rolls, of the Rolls Chemical Company, won the 1928 annual golf tournament of the Buffalo Paint, Oil and Varnish Club, played September 14 at Orchard Park, N. Y. He thereby obtained a third leg on, and permanent possession of, the trophy put up in 1921 by the late J. H. McNulty for the Buffalo paint club golfer who would become champion on three different occasions. Mr. Rolls topped the club golfers in 1924 and 1925 in addition to this year.

W. H. Towns, of the Towns Paint Company, announced to the club members, who held a dinner in the Hotel Statler, Buffalo, following their tournament, that he would give a cup to be contested for under like conditions beginning next year. Many other prizes were awarded at the dinner, Jack Sanderson, of the Larkin company, being the distributor of the gifts and toastmaster at the dinner at which a festive program rather than speeches was featured.

Lacquer Recommended for Painting Chicago Bridges

CHICAGO, Sept. 20, 1928.

Chicago newspapers have stirred up considerable interest both among city officials and in the paint trade by their reports that city officials have recommended purchase of lacquer for city bridge painting at virtually double the cost of paint, while half the city's bridges are declared to be rusting because of lack of money even for paint. Necessary expenditures are held up by the city comptroller's office. The Chicago Tribune reports that the lacquer involved will be furnished at a price of $9.50 a gallon, compared with $5 a gallon said to be charged for paint.

City Engineer Gayton, recommending the use of lacquer, wrote to officials in his recommendation that this kind of surface covering "is a radical departure from the paints ordinarily used for bridge painting. While its cost is relatively high, the preliminary tests and investigation have led us to believe that such extra cost will be economical over a period of years." He added that the material quoted is of especially high quality.

Members of the city finance committee said a full investigation would be made of other paint orders from the department of public works. With so many bridges badly in need of paint they said the city can ill afford to pay double prices without close scrutiny. City engineers recently stated that only $45,000 was appropriated for bridge painting this year, although $100,000 was needed. As a result, a score of bridges have not been painted for five years, it was said.

New York Paint Golfers Play Canoe Brook Course

Thirty-five members of the "Save the Surface" Golfers of the Paint, Oil and Varnish Club of New York took part in the monthly tournament September 12. The meet was at the Canoe Brook Country Club, Summit, N. J. Henry G. Sidford, manager of the Atlantic branch of the National Lead Company, was the busy and satisfactory host for the occasion.

In the sweepstakes event after luncheon, G. A. Wharry won first prize in class A with a net score of 73. Jack Allegaert was second with 77. In class B, O. P. Hense, with a net 74, was best, H. M. Howard being next with 80. D. B. Falcon led in class C with a net 81. Second place was tied for by A. E. Jacobs and F. B. Pettit with scores of 83.

Baltimore P.O.&V. Club Has Well-Attended Outing

The Baltimore Paint, Oil and Varnish Club had an outing September 13 at the Hillendale Country Club, which attracted a large attendance of the members. Some of them played golf in the afternoon, while others spent the time in divers ways. All united for the dinner at 6:30 p. m., which was an enjoyable affair.

Some talk there was of business conditions, which were represented as decidedly good, with the demand for paints and oils brisk. The president, B. G. Lehman, of the National Lead Company, announced that the executive committee will have a resolution to offer at the national convention in Detroit next month.

N.P.O.&V.A. President Calls to Detroit Meeting

The president of the National Paint, Oil and Varnish Association, James B. Keister, San Francisco, is issuing through the current number of the bulletin of the association, the following call to members to attend the annual meeting at Detroit, October 15 to 19:—

Commerce and industry are the foundation upon which are built our entire financial and social structures.

Due to scientific research and mechanical invention, there have come about during the past century, changes in our business and social life more radical than were evidenced in 5,000 years of the world's previous history. The old order of things has passed, never to return.

Scientists Warn Us

Forward-looking scientists warn us that we are as yet just standing upon the threshold of more marvellous things to come, things that will, within the next fifty years, affect our business and social structures even more profoundly than during the past century. Whatever the future may hold "is a river we need not cross until we come to it." Enough has already happened to challenge the best thought in our industry if we are to meet and settle problems already developed and facing us.

Friendly Co-operation

I think it is becoming increasingly evident to all of us that if our industry is to prosper and make safe and orderly progress, it must be conducted in a spirit of friendly co-operation. Not many years ago, territories, because of difficult and expensive transportation and indifferent means of intercommunication, were so isolated that outside competition was negligible and problems were only local in character. That condition no longer exists. More and more each year manufacturers long content with business yielded from what they termed "home territory" have been compelled to seek wider fields because others have invaded what had long been their "private preserve," divided the business and compelled them to seek new pastures or else close up shop.

A Grave Danger—Unless

I hope I am wrong, but I sense a grave danger of chaos in our growing industry unless every individual connected with it can be made co-operative minded and brought to a realization that the one hope is through friendly, unselfish co-operation; a sportsmanlike willingness to give and take.

A Great Convention

Your association has never been so well and admirably equipped for efficient service as now. Its work has been marvelously effective but it can be made more so if every man in our great industry lends a hand. Come to Detroit next month and help to make our forty-first convention the most interesting and profitable ever held by our association. It is going to be a great convention. You will get a new inspiration.

The mechanics of business are nearly perfect. Our danger is that business morals will not keep step with our amazing mechanical and scientific development. The convention is going to be an open forum for the discussion of many problems affecting the present and immediate future of our industry. These problems can be safely met and settled if we do it collectively, but it cannot be done by "stay-at-homes" or individually. Personal contact is the greatest foe of suspicion and misunderstanding. It begets confidence, and it is so easy for confidence to ripen into friendship, and friendliness is the one great need of all industry today.

C. M. Shirley Retires

Charles M. Shirley, comptroller of the St. Louis branch of the National Lead Company, retired from business September 16, his eightieth birthday.

Mr. Shirley became associated with the lead pigments business in August, 1878, as a bill clerk for the Southern White Lead Company, St. Louis. When that company was merged in the National Lead Company, in 1887, he was a member of its accounting staff and was made assistant comptroller of the National's St. Louis branch. About a year ago he was made comptroller.

H. E. Howe, Indianapolis, sales manager for the American Can Company, and long secretary of the Indianapolis Paint, Oil and Varnish Club, was in Chicago last week.

S. L. Sulzberger, president of the Enterprise Paint Manufacturing Company, Chicago, is expected home October 1, with Mrs. Sulzberger, after a four months' vacation abroad.

The George E. Watson Company, Chicago, has published its annual catalog, "No. 49," with an attractively designed cover in black, green, and white. It contains a painters' supply encyclopedia.

Evans McCarty, vice-president of the National Lead Company, this city, and executive officer of several subsidiary companies, returned September 18 on the "Paris" from an extended business trip abroad.

An address by Benjamin M. Anderson, economist for the Chase National Bank, New York, will feature the first fall season meeting of the Chicago Paint, Oil and Varnish Club at the Chicago Athletic Association Tuesday evening, September 25. His subject will be "Tendencies in Business and the Money Market."

The new officers of the "Save-the-Surface" Salesmen's Club of Chicago were installed at a meeting of the club September 20. The salesmen were guests of H. S. Bickford, sales manager for the Standard Varnish Works, at the Midland Club. L. M. Wise, Service Paint & Varnish Company, is president; Stanley J. Kolkowski, John Lucas & Co., vice-president; C. J. Winberg, Heath & Milligan Manufacturing Company, treasurer; and B. W. Kunst, H. M. Hooker Glass & Paint Company, secretary.

Paraffine Companies, Inc., San Francisco, has bought the Plant Rubber & Asbeston Company.

Construction of a $1,250,000 plant at Philadelphia has been got under way by the United States Gypsum Company.

Charles B. Knox, of Knox & Morse, varnish manufacturer, Boston, was in this city during the week of September 17.

A new corporation, the Acme Glass Company, has been organized to merge the Eastern Glass Company and Acme Glass Company.

R. O. Walker, of the Thibaut & Walker Company, Long Island City, returned September 17 from a vacation trip abroad.

Belgium exported 2,218 tons of white lead in the first seven months of 1928, compared with 2,476 tons in the corresponding period of 1927.

A. C. Bate, secretary of the Kalbfleisch Corporation, is spending a two weeks' vacation on a motoring trip. He is expected back September 24.

Paint and varnish products to the value of $36,999.48 were sold in Huntington, W. Va., during the clean-up and paint-up campaign this year.

German manufacturers of bone glue have formed an association, Deutsches Knochenindustries G. m. b. H., for the centralization of purchases of raw materials.

Hayes Clemens, Erie, Pa., director of the Kalbfleisch Corporation, was at the company's headquarters office in this city during the week of September 17.

Fred L. Somers, treasurer of the Fred L. Lavanburg Company, dry color manufacturer, this city, is expected back September 24 from a business trip to Western markets.

French paints are now admitted into Tunis free of duty, under a recently negotiated reciprocal trade agreement. In return, France gives free entry to Tunisian white lead and zinc oxide.

Great Falls has been awarded the trophy for Montana in the clean-up and paint-up campaign conducted by the General Federation of Women's Clubs. Billings got honorable mention.

John Grieve, formerly vice-president of Dominion Paint Works, Ltd., and Detroit Graphite Company, has been appointed general industrial sales manager for Brandram-Henderson, Ltd., Montreal.

The McMurtry Manufacturing Company team in the South Denver Merchants' Bowling League made a score of 2,278 pins September 14 against 2,297 for the Commercial Saving & Loan Association.

Argentina exported 14,161 tons of casein in 1927, compared with 19,460 tons in 1926, drought causing a drop in production last year. Exports during the first five months of 1928 amounted to 8,036 tons.

Walter B. Ramsay, president, A. Ramsay & Son, Ltd., Montreal, and Canadian vice-president of the National Paint, Oil and Varnish Association for several years, sailed last week for a vacation in England.

The Rowe Paint & Varnish Company, Niagara Falls, N. Y., has changed the classification of its capital stock from $200,000 in $100 shares to 400 shares preferred stock $100 par value and 1,400 shares common stock non par value.

A building permit has been issued to the Reliance Varnish Company, 915 East Kentucky street, Louisville, for a brick addition to its plant, at a construction cost of $12,500. Ben J. Robertson, jr., president, says that the company is planning to double the capacity of its lacquer department.

W. R. Timken, H. E. Talbott, jr., and Hunt T. Dickinson have been elected directors of the Triplex Safety Glass Company of North America. W. C. Alcorn, formerly general manager of the stamping division of Transue & Williams Company, has been appointed general manager.

The Jaffe Company, Paterson, N. J., district distributor for the McDougall-Butler Company, Buffalo, was host to 100 master painters September 12. Nelson M. Graves, vice-president, and Vernon Smith, varnish department superintendent of the Buffalo plant, were present and spoke. Morris Jaffe, head of the Paterson company, and P. G. Smith, sales manager, also addressed the master painters.

Routine business only was transacted at the first fall meeting of the board of directors of the National Lead Company, this city, September 20. Those in attendance were E. S. Beale, Philadelphia; Alfred H. Brodrick, Boston; George L. Carpenter, St. Louis; W. H. Croft and Charles E. Field, Chicago; Wm. T. Taylor, Pittsburgh, and E. J. Cornish, G. W. Thompson, W. C. Beschormann, Fred M. Carter, Evans McCarty, H. G. Sidford, and Fletcher W. Rockwell, all of this city.

Flaxseed and Linseed OIL

Linseed Oil Advanced on Rise in Seed Prices —Northwestern Receipts Lighter —Argentine Shipments Small

The trend of flaxseed prices in domestic and foreign markets was upward last week, daily changes being moderate. Weather conditions in the Northwest were unfavorable. Rains interfered with the work of threshing and marketing the crop. Receipts at terminal points were lighter. There was a good demand for cash seed. Trading in futures was fairly active. Buying of December by the country was something of a feature of the trading at Minneapolis.

Shipments of seed from Argentine were light. Exports to this country were only 98,000 bushels, and the total since January 1 showed a decrease of about 4,500,000 bushels as compared with the same time last year. Shipments to all destinations last week were 1,402,000 bushels against 2,315,000 in the previous week and 1,784,000 last year.

Linseed oil was advanced by crushers owing to the rise in seed. Cake and meal were steady.

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Flaxseed

DULUTH, Sept. 21, 1928.

Lack of receipts has kept the flax market prices up during the past week. The receipts are much lighter than was expected, although a great deal was not looked for because of the bad weather. But the falling off from last year is noticeable, and crushers are bidding up spot seed and October, while December has not been affected much because of the slow movement. Spot premium was increased a cent over October this week, and is now 5 cents over. September has gained about 2 cents in the past week and October has benefited better than 1½ cents. December advanced more than a cent.

The week's closing range was as follows:—

	Cash.	Oct.	Dec.
Saturday	$2.15¼	$2.11¾	$2.12¾
Monday	2.16⅜	2.12	2.13¼
Tuesday	2.17⅜	2.13	2.13½
Wednesday	2.18½	2.13½	2.13¾
Thursday	2.20	2.15	2.15
Friday	2.23½	2.18½	2.17¾

Daily receipts and shipments of domestic seed during the week ending September 21, 1928, and in the corresponding week last year were, in bushels:—

	Receipts 1928.	Receipts 1027.	Shipments 1928.	Shipments 1927.
Saturday	21,087	37,845	....	....
Monday	14,866	26,031	....	....
Tuesday	26,968	51,407	51,627	....
Wednesday	33,221	22,218	....	....
Thursday	28,877	39,431	....	....
Friday	27,492	39,963	....	138,000
Totals	152,511	216,895	51,627	138,000
Previous week	80,695	134,113	48,500	114,462
From Aug. 1 to date	457,165	455,649	373,700	590,194
In public warehouses	210,023	468,576	....	....

Minneapolis Flaxseed

MINNEAPOLIS, Sept. 21, 1928.

Flaxseed receipts dropped off suddenly and sharply and buyers refuse to compete for the light offerings. While the movement from the country was liberal there was rather strong demand for the offerings and premiums gained steadily until some of the dry western quality was bringing 8c over September. Outside nearby and eastern crushers competed for the daily offerings here and Duluth showed a more aggressive attitude. Eastern mills want some seed to flow over the lakes before the close of navigation and local crushers with eastern mills seem a little more anxious to accumulate a reserve here before shipping anything East. On the whole there is and has been a very good demand for the offerings and premiums are unusually high for this time of the year. Shipping advices in the past few days have been light because of rainy weather conditions and lack of threshing operations.

Local elevator stocks are increasing moderately from day to day, not nearly as fast as the crushers would like. Deliveries on September contracts to date, 16,000 bushels. Just why this seed should be delivered when track offerings sell at 3c. and 6c. over September is puzzling.

Spot No. 1 seed is quoted at 1c. to 7c. over September. For several days one buyer paid 8c. over for seed testing 8 percent moisture or less. No arrive trade reported.

Trade in futures is spasmodic. Crushers and cash houses are buying the near months and when a carrying charge is represented sell the deferred contracts. The country is buying December quite steadily against storage tickets issued to the farmers, the flax being shipped in and sold. September is getting pretty tight now. Inasmuch as the average quality of this year's seed is good crushers are perfectly willing to take delivery this month or in October. September is selling at a slight premium over October for that reason. There is a little recovering of hedges against sales in the cash department and this affects September mostly. Some buying in of October hedges, but not much.

The trade is still looking for a gradually increasing spirit of competition in the cash market as the close of navigation draws closer. So far Duluth has received very little seed and of late has become more aggressive in bidding for country offerings.

The week's closing range was as follows:—

	Cash.	Oct.	Dec.
Saturday	$2.12½	$2.08½	$2.12½
Monday	2.14¼	2.09	2.12¼
Tuesday	2.15½	2.08½	2.12¾
Wednesday	2.16¼	2.11	2.13¾
Thursday	2.18¼	2.12	2.15¼
Friday	2.20¾	2.14¾	2.18

Daily receipts and shipments of domestic seed during the week ending Sept. 21, 1928, and in the corresponding week last year, were, in bushels:—

	Receipts 1928.	Receipts 1927.	Shipments 1928.	Shipments 1927.
Saturday	107,100	172,550	17,050	18,180
Monday	142,290	482,850	43,400	17,170
Tuesday	47,430	155,680	38,740	35,970
Wednesday	19,890	148,730	31,290	21,800
Thursday	48,960	126,490	16,390	27,250
Friday	68,650	229,350	29,800	20,710
Total	433,620	1,315,650	176,670	141,080
Previous	2,123,970	1,713,050	366,390	330,330
From Sept. 1 to date	2,557,590	3,028,700	543,060	471,410
In public warehouses	320,000	374,582	.....	.....

Flaxseed Receipts at New York

Receipts of flaxseed at New York last week were as follows:—

	Bushels Domestic.	Bushels Foreign.
Thursday	.....	237,438
Totals	.....	237,428
Since January 1:—		
This year	48,000	9,643,548
Last year	1,500	15,515,544

Current prices on linseed oil and cake and meal, formerly printed on page 3, are now printed at the end of this market report.

Chicago Flaxseed Movement

CHICAGO, Sept. 14, 1928.

Receipts and shipments of flaxseed for the week ended today were as follows:—

	Bushels Receipts.	Bushels Shipments.
Saturday	2,000	....
Monday	1,000	....
Tuesday	5,000	....
Wednesday	1,000	....
Thursday	5,000	....
Friday	5,000	....
Totals	19,000	....
Since January 1:—		
This year	1,805,000	165,000
Last year	1,996,000	2,000

Winnipeg Flaxseed

WINNIPEG, Sept. 21, 1928.

Demand for cash flaxseed was fairly active, but trading in futures continued quiet. Changes in prices were moderate. Crop news was bullish. Business in oil was quiet. This week's closing range was as follows:—

	Cash.	Oct.	Dec.
Saturday	$1.86	$1.81⅝	$1.88⅝
Monday	1.84⅝	1.81	1.88
Tuesday	1.83½	1.81¼	1.87½
Wednesday	1.85½	1.82⅝	1.88¾
Thursday	1.86½	1.84½	1.90
Friday	1.87½	1.88¾	...

Canadian Flaxseed Statistics

For the week ended September 14 and for the season from August 1:—

Stocks in Store

	Bushels.
Fort William and Port Arthur	338,667
Interior elevators	49,887
Country elevators	40,616
Vancouver	....
Total	429,170

Receipts During Week

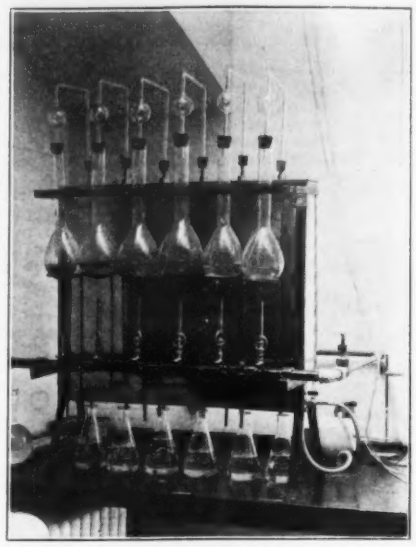
Fort William and Port Arthur	18,472
Interior elevators	5,903
Country elevators	17,607
Vancouver	....
Total	41,982

Shipments During Week

Fort William and Port Arthur	....
Interior elevators	30,650
Country elevators, rail	10,185
Vancouver	...
Total	40,835
Since August 1:—	
Receipts	71,295
Shipments	753,071

Valuable information on Imports and Exports of Oils and Oil Materials is given in port lists beginning on page 5.

CONTROL



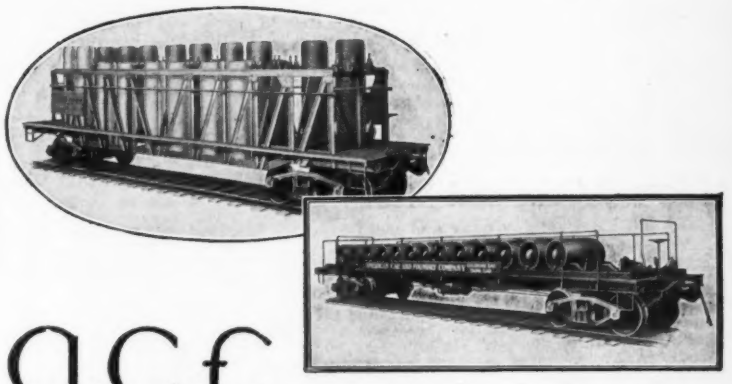
KELLOGG'S THE TEST TELLS 1894

ITS reputation is perhaps the most cherished possession of an old established business concern. Since the reputation of Spencer Kellog and Sons rests largely with the oils it sells, the most jealous care is taken to insure their uniformity.

No chances are taken, no guesses are made, even where the guess would almost invariably be right. Manufacture is controlled rigorously in

1. Selection of the seed, whose varying conditions of origin make necessary expert discrimination.
2. Manufacturing processes, which are so highly developed through Kellogg scientific research.
3. Final tests—every order must meet a searching laboratory test before it is shipped.

SPENCER KELLOGG AND SONS, Inc.
Linseed Oil Department
Buffalo, N. Y.
New York Office—Graybar Building



a.c.f. cars

for

liquid chlorine, sulphur dioxide, propane, butane, anhydrous ammonia, etc.

The car shown in the oval carries *thirty* 1-ton Rowland Containers for liquid chlorine or sulphur dioxide (permitting shipments of sulphur dioxide at minimum carload rates), or *thirty* 1000-pound Rowland Containers for propane, butane, or anhydrous ammonia (I.C.C. No. 27).

The other type of car (lower picture) is for *fifteen* 1-ton Rowland Containers, carried horizontally, for liquid chlorine or sulphur dioxide.

Write for more information about these and other recent a.c.f. constructions—and "*always get a 'Car Foundry' quotation*".

AMERICAN CAR AND FOUNDRY COMPANY
30 Church St., New York Chicago — St. Louis
a.c.f.
IN THE SERVICE OF THE NATION'S RAILWAYS, HIGHWAYS, WATERWAYS, INDUSTRIES

Buenos Aires Flaxseed

A moderate advance occurred in flaxseed prices. Opening prices per bushel on October contracts were:—

	Last wk.	Last yr.
Saturday	$1.63½	$1.78½
Monday	1.63⅝	1.76
Tuesday	1.64⅜	1.75¼
Wednesday	1.64⅝	1.71⅞
Thursday	1.65⅝	1.71⅞
Friday	1.65½	1.72¼

Exports

To—	Bushels—Last week.	Previous week.	Last year.
United States	98,000	...	480,000
United Kingdom	59,000	126,000	112,000
Continent	331,000	646,000	568,000
Orders	906,000	1,504,000	624,000
Others	8,000	39,000	...
Totals	1,402,000	2,315,000	1,784,000

Since January 1

To—	Bushels—This year.	Last year.
United States	10,122,000	14,656,000
United Kingdom	2,860,000	4,568,000
Continent	20,507,000	19,348,000
Orders	23,777,000	19,388,000
Totals	57,266,000	57,960,000

Visible Supply

	Bushels.
Last week	3,543,000
Previous week	3,543,000
Last year	4,000,000

Indian Flaxseed Exports

To—	Bushels—Last week.	Previous week.	Last year.
United Kingdom	....	8,000	....
Continent	60,000	272,000	152,000
Totals	60,000	280,000	152,000

Since April 1—	Bushels—This year.	Last year.
United Kingdom	512,000	1,248,000
Continent	2,668,000	2,434,000
Totals	3,180,000	3,682,000

London Flaxseed Prices

Quotations on Calcutta flaxseed at London last week were:—

	Per ton—£	s.	d.
Saturday	17	10	0
Monday	17	10	0
Tuesday	17	12	6
Wednesday	17	12	6
Thursday	17	15	0
Friday	17	15	0

Hull Flaxseed Prices

Quotations on flaxseed at Hull last week were:—

	Per ton—La Plata.	Calcutta.
Saturday	£15½	.....
Monday	15⅝	.....
Tuesday	15⅝	.....
Wednesday	15¼	.....
Thursday	15⅜	.....
Friday	15¼	.....

Antwerp Flaxseed Prices

Quotations on flaxseed in Antwerp during last week were:—

	Per 100 kilos. francs.
Saturday	308
Monday	308
Tuesday	308
Wednesday	305
Thursday	309
Friday	309

Linseed Cake and Meal

The local market for cake and meal remained steady. The foreign inquiry for cake continued good, while offerings for prompt and nearby shipment remained light. Business in meal here was quiet, but an increase in demand was reported in outside markets. Local quotations were maintained at previous levels.

Minneapolis Linseed Meal

MINNEAPOLIS, Sept. 21, 1928.

Demand for meal has been picking up steadily and at the moment is quite aggressive. Orders for carload lots are quite numerous and there is more contracting for round lots, sales of 500 tons being more or less frequent of late. Stocks in the hands of distributors have been very small for some time past and a little chill in the air stimulated interest in the accumulation of some supplies for fall distribution.

Shipping instructions are good and the accumulation here has virtually disappeared. The new season is starting with stocks very light in all positions and the undertone of the market is strong. Crushers expect to see higher prices in the near future, and therefore not trying to make any forward delivery contracts. There is some selling for ten days to two weeks' shipment, but no organized effort to sell for 30 to 45 days in advance, as there usually is at this time of the year.

Quotations on carload lots, f.o.b. Minneapolis, 100-pound sacks, $46.50 to $47 per ton.

Daily shipments of linseed oil meal and cake during the week ending September 21, 1928, and in the corresponding week last year were, in pounds:—

	1928.	1927.
Saturday	1,301,325	687,585
Monday	1,122,715	522,330
Tuesday	760,170	1,047,440
Wednesday	1,619,579	960,335
Thursday	993,200	755,410
Friday	1,342,408	389,256
Totals	7,140,397	4,362,356
Previous totals	9,920,636	9,365,121
Totals to date	17,061,033	13,727,477

Chicago Linseed Meal

CHICAGO, Sept. 21, 1928.

The linseed meal market here was smartly stronger and prices went higher, with sellers reporting a near-shortage. Orders booked totaled a satisfactory volume. Buyers were willing to do business at sellers' prices. Round lot buying was of good proportions. Ruling quotations per ton were:—Car lots, $49.50; less than car lots, $52; round lots, September-October, $49.

Linseed Oil

The market for linseed oil was more active and stronger last week. The trend of flaxseed prices was upward much of the time and crushers announced two advances of one point each in linseed oil. At the close of the week quotations were 9.9c. to 10c. per pound for car lots in cooperage and 9.1c. to 9.2c. per pound in tank cars.

An increase was noted in the volume of inquiries received from local and outside buyers, though large consumers in the paint and linoleum industries in some cases were still inclined to hold off for further developments in the seed situation. A fairly active demand was noted from jobbers.

The strength of seed prices in domestic markets was attributed to unfavorable weather. There were further rains at the Northwest, the precipitation checking threshing operations and causing a falling off in receipts. Demand for cash seed was good. Trading in futures was fairly active. The country was a seller of the December option at Minneapolis.

Minneapolis Linseed Oil

MINNEAPOLIS, Sept. 21, 1928.

There is steady buying of linseed oil for shipment any time between the present and next summer. Most of the interest is in delivery some time during the winter. Prices are quoted very low compared with cost of manufacture, and because of this some of the buyers are making oil contracts in preference to buying hedges in flax futures, as was the case a short time back.

There is considerable buying of small lots for nearby shipment and some contracting for round lots for periodic shipment through the season. Trade in warehouse lots is still holding above normal and in general the market is quite satisfactory.

Shipping instructions on maturing contracts are good and liberal quantities of oil are being moved out. As soon as the crushers have been able to accumulate enough seed in reserve they will increase their operations, as old crop reserves are getting pretty light.

Quotations on carload lots, f.o.b. Minneapolis, cooperage, 9.5c. per pound; tankcar lots, 8.7c. per pound, and warehouse lots, 9.9c. per pound.

Daily shipments of linseed oil during the week ending September 21, 1928, and in the corresponding week last year were, in pounds:—

	1928.	1927.
Saturday	705,399	562,073
Monday	510,632	357,198
Tuesday	625,523	963,750
Wednesday	591,651	484,821
Thursday	637,654	548,726
Friday	658,862	321,844
Totals	3,729,921	3,238,412
Previous totals	6,273,063	6,876,454
Totals to date	9,902,984	10,114,866

Chicago Linseed Oil

CHICAGO, Sept. 21, 1928.

Deliveries of linseed oil were of good volume against contracts, and there was considerable fresh buying, the net result being a sufficiently strong tone to shove prices generally up about 1/10c. Underlying conditions in the product and the position of the trade are considered to be such that some strength is to be expected. Crushers were in the market to fair extent. Cooperage business booked was good. Ruling quotations per pound were:—Tankcars, September-March, 8.7c.; cooperage, car lots, September-March, 9.5c.; warehouse deliveries, 9.9c.

Antwerp and London Oil

Quotations on linseed oil in Antwerp and London last week were:—

	Antwerp, per 100 kilos. francs.	London, per cwt. s.	d.
Saturday	480	27	9
Monday	480	27	9
Tuesday	480	27	9
Wednesday	480	28	0
Thursday	482	28	0
Friday	485	28	0

Current Prices

(For late price changes, see page 2)

Linseed oil, boiled, tanks	lb.	.0950@.0960
car lots, barrels	lb.	.1030@.1040
less car lots, barrels	lb.	.1070@.1080
less than 5 barrels	lb.	.1120@.1130
double boiled, less than 5 barrels	lb.	.1140@.1150
raw, tanks	lb.	.0910@.0920
car lots, barrels	lb.	.0990@.1000
less than car lots, barrels	lb.	.1030@.1040
less than 5 barrels	lb.	.1080@.1090
refined, barrels	lb.	.1070@.1130
varnish grades, barrels	lb.	.1090@.1150
Linseed cake, bags	ton.	46.50 @47.00
meal, bags	ton.	55.50 @ —

Petroleum Freight Case Reopened at Kansas City

KANSAS CITY, Sept. 17, 1928.

The hearing of the Interstate Commerce Commission held here last week on the reopening of the case on freight rates on oil products from Kansas City (group 1), Kansas origins (group 2) and Oklahoma origins (group 3), to Nebraska and other destinations, occupied several night and day sessions and brought out indications that this will be one of the hardest fought cases in the long history of rate battles between Southwestern refiners and carriers.

The rehearing was brought about by petition in the case of the A. B. A. Independent Oil Company and others against various carriers, which was decided by the commission some time ago. Reopening of the case was made for "future rates only," with the understanding that there will be no rebates and no reparations, according to the two examiners in charge of the hearing.

A large number of interveners appeared at the hearing, most of whom had a different proposal, depending on their particular interest. The White Eagle Oil & Refining Company, Kansas City, proposed rates which should approximate 21 percent of the first-class rates for distances shown from group 2 prescribed for application in the Southwestern territory. Rates at Omaha and Lincoln were not to be disturbed. The Skelly Oil Company, El Dorado, Kan., with an extensive set of exhibits, proposed 20 percent of first-class rates, with distance figured through the Superior gateway, which would be opened from all points South. The Sinclair Refining Company also proposed a 20 percent rate.

A large number of Oklahoma refiners pooled their proposal under one expert who sought to open a gateway at Concordia, Kan., to serve Nebraska. This would make a rate of 33c. (group 3) from Benkleman, Neb., to Geneva, Neb., and as ar north as North Platte.

The Kansas City Freight Rate Service, said to represent fifty Nebraska jobbers, proposed a rate of 18 percent of the first-class rate. The Roxana Petroleum Corporation advocated a flat 25 percent of first-class rate throughout the State of Nebraska, which would increase the rate to Omaha and Lincoln 44c. per hundred. However, the carriers proposed 31½ percent of the first-class rate, which would raise all Nebraska rates.

The testimony in the case will be reviewed, briefs filed and oral arguments will be heard by the commission as a whole in Washington.

Denver Oil Bowlers

Denver oil teams in the various bowling leagues in recent contests rolled as follows:—

In the Greater Denver League September 12, Robar Oil Company, 2502, against Dry Climate Cigars, 2660.

In the Industrial League September 14, Powerine Oil Company, 2387, against Carlson-Frink Dairy, 2363.

Argentine Vegetable Oil Crushing Gained in 1927

The vegetable oil industry of Argentina was more active in 1927 than in 1926 because of the large increase in the production of peanut oil and smaller increases in the production of rapeseed, cottonseed and olive oils, according to the United States Department of Agriculture.

Linseed oil, castor oil and corn oil were produced in smaller amounts in 1927 than in 1926. The total production of vegetable oils produced during 1927 exceeded the total for 1926 by 20.4 percent. Seed employed was 10.8 percent greater than the previous year and the average yield was 2 percent greater than in 1926. The production of olive oil is expected to increase each year. Experiments with olive oil production in the province of Mendoza, La Rioja and Entre Rios, while on a small scale, gave satisfactory results. In the provinces bordering on the Andes the cultivation of olive trees is well under way and it is expected that within a few years the production of olive oil will become of importance to Argentina. The following table gives the production of vegetable oils in Argentina together with seed utilized, percent of oil obtained and production of oil cake in 1926 and 1927:—

	Seed used—1926.	1927.	Oil obtained—1926.	1927.	Oil yield—1926.	1927.	Oil cakes—1926.	1927.
Linseed	30,023	26,790	8,188	7,614	27	28	21,806	18,905
Rapeseed	24,732	36,137	7,011	10,066	28	28	16,724	24,670
Peanut	108,066	119,812	25,591	32,088	24	27	44,201	57,045
Cottonseed	56,589	67,367	7,423	8,732	13	13	21,336	31,824
Castor bean	4,453	4,409	1,019	999	23	23	573	902
Sunflower	....	582	....	128	..	22	....	267
Corn	20,555	15,672	822	627	4	4	....	....
Olive	138	275	32	49	23	18	....	....

British Group May Bid For Iraq Oil Concession

An influential British financial group has made important proposals to the Iraq government, which has power next November to submit for sale by tender certain oil plots in the Mosul and Bagdad Vilayets, according to a Reuter dispatch from Bagdad to the Manchester Guardian.

The group will tender those plots, and if successful will sign forthwith agreements to construct the Iraq section of the Bagdad-Haifa railway without any financial contribution from Iraq. The distance of the projected line is about five hundred miles, half of which is in Iraq territory and the other half in Transjordania and Palestine. If the company's offer is accepted, negotiations will be opened with the colonial office regarding the construction of the line in Palestine and Transjordania.

It is understood that Lord Inverforth, Lord Wemyss, and John Latta are concerned in the group.

Atlantic Refining Sells Its Superior Oil Stock

The Atlantic Producing Company, a subsidiary of the Atlantic Refining Company, has sold all its stock in the Superior Oil Corporation to C. Naphen & Company, Inc.

J. H. Stone and R. H. Colly have resigned as directors and vice-president. E. G. Henry, secretary; J. P. Rettew, general counsel, and L. J. Reilly, assistant-secretary of Superior Oil, have also resigned. This eliminates entirely from Superior Oil Corporation management any person connected with the Atlantic Refining Company.

In the reorganization of the Superior executive personnel, following the transfer of the Atlantic Refining holdings, E. R. Perry, formerly vice-president and general manager of Cosden & Co., was elected chairman of the board. H. G. Davies will continue as president. George F. Naphen and M. M. Cunniff, of Naphen & Co., and Maxwell Stevenson, formerly president of the Creole Petroleum Corporation, were added to the board of directors.

L. C. Bridgeman, representative of Spencer Kellogg & Sons, at Buenos Aires, was in Minneapolis last week.

Henry J. Dahl, of Louis Dreyfus & Co., linseed importer, this city, has applied for associate membership in the New York Produce Exchange.

R. G. Bennett, manager of the raw materials department for Spencer Kellogg & Sons, Inc., linseed crusher, Buffalo, was in this city during the week of September 17.

Lower freight rates on shipments of linseed oil from Milwaukee, Chicago, Minneapolis, St. Paul, and Freedonia, Kans., to Houston, Texas, are asked by the Kuhn Paint & Varnish Works, Houston, in a complaint filed with the Interstate Commerce Commission.

H. A. Cudding, of the Hirst & Begley Linseed Company, Chicago, is on vacation. With Mrs. Cudding, he motored to Niagara Falls for a visit with relatives and then will visit the Pennsylvania oil fields region, Mr. Cudding's old home. He will return about October 1.

William O. Goodrich, chairman of the board of directors of the William O. Goodrich Company, linseed crusher, Milwaukee, who was confined to the Presbyterian Hospital here for about two weeks with stomach trouble, had made such progress toward recovery that he was expected to leave September 23 for his home in the West. Mr. Goodrich, who was accompanied by Mrs. Goodrich and their daughter, was stricken while returning from Europe and was taken to the hospital immediately upon arrival here.

Preservatives Used in Wood-Treating Plants

The Forest Service of the United States Department of Agriculture, in co-operation with the American Wood-Preservers' Association, has compiled and published in a booklet by R. K. Helphenstine, jr., a comprehensive collection of data on the quantity of wood treated for preservation in the United States and the nature and amounts of preservatives used in such operations. The following table, included among these data, shows the consumption of preservatives by wood-treating plants in the United States during the past nineteen years:—

	No. of plants.	Distillate coaltar creosote. Gallons.	Creosote coaltar solution. Gallons.	Refined water-gas tar. Gallons.	Water-gas tar solution. Gallons.	Imported creosotes. Gallons.	Total creosotes. Gallons.	Petroleum. Gallons.	Paving oil. Gallons.	Zinc chloride. Pounds.	Miscellaneous preservatives. Gallons.
1909	64	*	*	*	*	37,569,041	51,426,212	*	*	16,215,197	*
1910	71	*	*	*	*	45,081,916	63,266,271	*	*	16,802,532	2,333,707
1911	80	*	*	*	*	51,516,706	73,027,335	*	*	16,359,797	1,000,000
1912	84	*	*	*	*	52,531,295	83,666,490	*	*	20,751,711	3,072,462
1913	93	*	*	*	*	66,673,192	108,373,359	*	*	26,466,803	3,885,738
1914	94	*	*	*	*	51,307,736	79,334,606	*	9,429,444	27,212,259	2,486,637
1915	102	*	*	*	*	37,501,007	60,859,442	*	3,205,563	33,269,604	1,693,544
1916	117	*	*	*	*	43,649,931	90,404,749	*	5,675,095	26,746,577	582,754
1917	115	*	*	*	*	18,259,141	75,541,737	*	7,579,819	26,444,689	137,361
1918	107	*	*	*	*	2,165,736	52,776,386	*	4,057,862	31,101,111	28,013
1919	108	24,286,851	31,292,661	1,148,634	2,334,727	6,493,974	65,556,247	*	2,412,592	43,483,134	102,011
1920	115	25,488,230	27,921,614	1,377,702	4,390,282	9,575,680	68,757,508	*	1,848,911	49,717,929	1,772,084
1921	122	19,469,509	25,283,046	3,135,610	2,391,816	28,242,307	76,513,279	*	1,060,753	51,375,360	1,810,294
1922	128	25,644,272	21,558,130	1,481,573	2,175,176	35,462,238	86,321,389	*	1,414,082	29,868,639	2,176,843
1923	135	29,061,508	31,658,833	2,867,128	1,462,539	62,367,297	127,417,305	*	1,570,932	28,830,817	4,706,968
1924	162	31,419,739	41,760,499	3,836,799	2,656,788	77,601,533	157,305,358	11,179,346	1,214,452	33,208,675	473,207
1925	167	35,163,522	38,692,263	2,735,187	1,661,833	89,389,985	167,642,790	13,048,539	2,080,287	26,378,658	331,591
1926	180	32,756,270	54,372,006	1,490,420	1,661,370	95,443,114	185,733,180	13,317,022	2,541,563	24,777,020	259,961
1927	187	46,232,792	78,876,279	1,922,576	1,685,364	91,061,509	219,778,430	22,911,134	1,389,465	22,162,718	†631,234

* Statistics not available for years shown.

† Includes 48,403 gallons of oils, and 150,506 dry pounds of salts expressed in gallons of treating solution, including ac-zol, sodium arsenite, Wolman salts, mercuric chloride, sodium fluoride, and zinc meta-arsenite.

Cottonseed Oil CAKE MEAL

Refined Oil Futures Irregular, Ending Higher —Cotton Up Sharply—Cloudbursts in Southeast—Lard Weaker

The local market for refined cottonseed oil futures was irregular last week, the ending being at a moderate net advance on the more active months. Changes in Southern quotations were generally small. Offerings of crude were light with prices steady. The movement of seed continued backward. Weather and crop news from the Southeast was unfavorable. Cloudbursts were reported in parts of Georgia and the Carolinas.

Total transactions in refined oil futures on the New York Produce Exchange for five business days of the week were 46,400 barrels. Refiners were credited with purchases and local and outside shorts covered. The trend of cotton futures in the local market was upward. On Friday October closed at 18.20c., December 18.24c. and January 18.22c., showing an advance of $3.50 to $4 per bale as compared with the final quotations of the previous Friday.

Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Cottonseed, Cake, Meal

Conditions prevailing in Southern markets underwent little change last week. In most sections the markets were quiet, buyers and sellers being inclined in many instances to await further developments. A continuation of quiet conditions is expected until the movement of seed expands. The work of picking and ginning the cotton crop made good progress in some sections, but rains interfered with operations of this nature in other parts of the belt. The crop in some sections is still said to be backward.

Offers of meal for future delivery were somewhat freer in parts of the Southeast, but although prices were materially lower than spot quotations, they were apparently not attractive to buyers, few transactions being reported. There was little meal available in the Southeast for immediate shipment and offerings for early October delivery were comparatively light, with $32 to $33 per ton quoted for 7 percent.

Cottonseed Oil

Trading in refined cottonseed oil futures in the local market was quieter last week, local and other operators being disposed in some cases to curtail dealings pending further and more decisive developments in outside markets, especially cotton. Fluctuations in that commodity were narrower after the recent sharp changes in prices. Variations in oil were confined within small limits.

Early in the week the trend of prices was upward. Cotton displayed firmness at times, influenced by bullish weather and crop news from the Southeast. Cloudbursts were reported in parts of Georgia and the Carolinas. At Savannah there was a rainfall on one day of the week of 11½ inches, while Charleston on the same day got a precipitation of 7¼ inches. It was contended that cotton could not escape damage from rainfalls of this kind. Also the work of picking and ginning the crop was checked.

The movement of seed was reported as light in comparison with last season. Crude oil was steady with offerings generally small. A fair demand was reported for refined oil and a somewhat better inquiry was noted here for lard compound. Tallow in the local market was firm at the recent advance and at the weekly auction in London prices were higher. Many oils, fats and greases were firm, although there was little snap to business.

The semi-monthly statement of lard stocks in Chicago, as expected, made a bullish showing. Supplies there decreased nearly 14,000,000 pounds during the first half of September, the total falling from 104,401,099 pounds at the opening of the month to 90,871,255 pounds on the 15th. A year ago stocks there were 82,916,901 pounds.

The weekly government weather and crop report was regarded by some as rather bullish on the whole, though it did not lack favorable features. It stated that although cotton showed some improvement in North Carolina, rain was again damaging. The crop was at a standstill in the Piedmont section of South Carolina and deteriorated elsewhere in that state with sappy plants and continued shedding. In Tennessee, Alabama and Mississippi progress varied widely, but it was opening rapidly in most portions, and picking and ginning made good advance. There was considerable boll rot and shedding in Alabama and blooming had practically stopped in Mississippi.

In Arkansas the crop made good advance with weather conditions favorable. Plants were still blooming in the North and picking progressed in all parts. In Louisiana the crop appears about made. In Oklahoma plants made fairly good progress; picking was general except in the extreme North and West; condition spotted, but averaged fairly good, while but little top crop was indicated. Conditions in Texas ranged from poor in the dry central and previously dry southern parts to very good in portions of the north. The crop was nearly made in the eastern half of Texas where plants had practically stopped blooming; progress averaged fair but growth was rank in the Northwest with considerable shedding; picking and ginning made very good advance.

Local and outside shorts covered and there was more or less new buying by ring traders and refiners.

On upturns, however, there was selling by local traders and commission houses. Weakness in lard encouraged interests to sell. The decline in lard was ascribed by some to a reaction in live hog prices, quotations on hogs at Chicago dropping 60 to 90 cents per 100 pounds, although receipts there continued light.

Selling of oil was not of an aggressive character, however, and closing prices on Friday were 10 to 21 points higher on the more active months, though October closed at a small decline as compared with the final quotations of the previous Saturday.

Following is a record of the market for the week:—

Monday, September 17, 1928

	Cents per lb. in bbls. High.	Low.	Close.	Sales Bbls.
January	9.89	9.75	9.83@ 9.87	1,000
February	...	...	9.85@10.00	...
March	10.02	9.90	9.98@10.02	700
April	...	...	10.02@10.12	...
September	...	...	9.75@10.00	...
October	9.85	9.85	9.80@ 9.85	100
November	...	...	9.65@ 9.85	...
December	9.83	9.68	9.78@ ...	1,000
Total sales				*3,000

Spot (prime summer yellow), 9.75.
Crude (immediate southeast), 8.00.
Valley, 8.00.

*Includes 200 switches.

Tuesday, September 18, 1928

	Cents per lb. in bbls. High.	Low.	Close.	Sales Bbls.
January	9.89	9.76	9.76@ ...	2,400
February	...	...	9.76@ 9.90	...
March	10.00	9.91	9.91@ ...	3,400
April	...	...	9.95@10.00	...
September	...	...	9.75@ 9.80	...
October	...	...	9.70@ 9.75	...
November	...	...	9.60@ 9.80	...
December	9.83	9.70	9.71@ 9.70	1,300
Total sales				*8,200

Spot (prime summer yellow), ...
Crude (immediate southeast), 8.00.
Valley, 8.00.

*Includes 1,300 switches.

Wednesday, September 19, 1928

	Cents per lb. in bbls. High.	Low.	Close.	Sales Bbls.
January	9.79	9.75	9.79@ ...	2,500
February	...	...	9.80@ 9.93	...
March	9.97	9.92	9.97@ ...	3,700
April	...	...	9.99@10.10	...
September	...	...	9.75@10.00	...
October	9.76	9.70	9.73@ 9.75	2,600
November	...	...	9.65@ 9.80	...
December	9.73	9.69	9.72@ 9.73	1,100
Total sales				*14,100

Spot (prime summer yellow), 9.75@10.00.
Crude (immediate southeast), 8.00.
Valley, 8.00.

*Includes 4,200 switches.

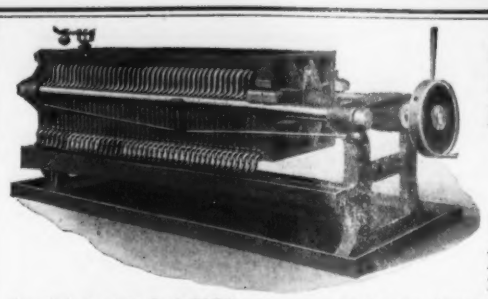
Thursday, September 20, 1928

	Cents per lb. in bbls. High.	Low.	Close.	Sales Bbls.
January	9.79	9.72	9.78@ 9.80	3,500
February	...	...	9.80@ 9.90	...
March	9.92	9.92	9.93@ 9.97	900
April	...	...	10.00@10.10	...
September	10.00	9.75	9.75@ 9.85	500
October	9.72	9.69	9.71@ 9.73	2,000
November	...	...	9.66@ 9.70	...
December	9.74	9.70	9.74@ ...	500
Total sales				*10,000

Spot(prime summer yellow), 9.75@10.00.
Crude immediate southeast), 8.00.
Valley, 8.00.

*Includes 2,600 switches.

Valuable information on Imports and Exports of Oils and Oil Materials is given in port lists beginning on page 5.



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Friday, September 21, 1928

	Cents per lb. in bbls. High.	Low.	Close.	Sales. Bbls.
January	9.97	9.76	9.97@ ...	3,500
February	...	...	9.95@10.10	...
March 10.10		9.93	10.10@ ...	...
April	...	...	10.40@10.22	...
September ...	...	...	9.85@10.25	...
October	...	...	9.82@ 9.90	...
November ...	...	...	9.80@ 9.90	...
December ...	9.93	9.70	9.80@ 9.93	2,800
Total sales				*11,000

Spot (prime summer yellow), 9.85@10.25.
Crude (immediate southeast), 8.00.
Valley, 8.00.

*Includes 3,000 switches.

Saturday cottonseed prices will be found on page 2.

Chicago Cottonseed Oil

CHICAGO, Sept. 21, 1928.

Currents were mixed in the cottonseed oil market here the past week, but by mid-week crude oil seemed slightly stronger than it was earlier, and rallied in price a trifle, although yellow oil was still below its ruling price a week earlier. A better tone was starting to come into buying. Texas prime crude last sold at 8c. Valley and Southeastern material went to 8⅛c Prime yellow bleachable oil was quoted at 9⅝c., noticeably below last week. Good off-summer yellow fig oil was quoted at 9¼c., off ½c. Refined edible oil was a shade stronger. Ruling prices were:—Barrels, car lots, 11¼c. to 11½c.; barrels, less than car lots, 11½c. to 12¼c.

Hull Cottonseed Oil Prices

Quotations on cottonseed oil in barrels in Hull, England, last week were:—

	Refined, per cwt. s.	d.	Egyptian crude, per cwt. s.	d.
Saturday	33	9	30	0
Monday	33	9	30	0
Tuesday	33	6	30	0
Wednesday	33	6	30	0
Thursday	33	6	30	0
Friday	33	6	30	0

Atlanta Cottonseed Products

ATLANTA, Sept. 21, 1928.

The market in cottonseed products is quite inactive and in a waiting attitude as to the new crop. The storm which brought heavy rainfall over the lower part of the southeastern cotton belt is considered damaging to seed, much of the cotton in the territory being open but unpicked. Prices on meal and hulls are weak. The seed market has not yet developed except in a limited way in the lower belt and there is a hesitancy on the part of the oil millers about buying the seed that have already been ginned. A price has hardly yet been established.

The quotations of this market are as follows:—

OIL.—Prime crude, 8c. per pound.

MEAL.—7 percent meal, $33 per ton, October, mill points.

HULLS.—Loose, $9.25 to $10.25 per ton, October.

LINTERS.—No. 1 grade, 6½c. to 7½c. per pound; No. 2 grade, 4¼c. to 4½c. per pound; No. 3 grade, 3¼c. to 3½c. per pound.

New Orleans Cottonseed

NEW ORLEANS, Sept. 21, 1928.

The market for cottonseed products was fairly steady. Offerings of new crop meal were comparatively light though larger than recently. The crop is still backward and there is less ginning than at this time last year. Prime crude oil, 8c. per pound, f.o.b. New Orleans; prime summer yellow, 9½c. per pound; soap stock, 50 percent, A.A.F., loose, 2c. per pound; cake, 8 percent ammonia, $38, nominal, per ton; meal, 8 percent ammonia, $43, nominal, per ton; hulls, $7 per ton.

Germany Raises Ban on Imports of French Dyes

In connection with the termination, August 15, of the German obligation to supply synthetic dyes on reparations account, Germany has raised the ban against importation from France of anilin, sulphur, alizarin, indigo, and other dyes embraced by items 319, 320, 321a, and 321b, of the tariff lists. This action parallels a similar one on the part of France, recently reported in this paper.

It is expected that the agreement between the German and French dye-manufacturing combines, which dates from late in 1927, will now become more tangible in its effects. The exact terms of this agreement have not been disclosed. It is generally understood that they allocate production, on the basis of possible sales, in the ratio of 75 for Germany to 12 for France, the remaining 13 percent being tentatively set aside for England.

German shipments of reparations dyes to Belgium, France, and Italy amounted to 1,600 tons, valued at 9,000,000 marks, in the first half of 1928. This compares with 900 tons, valued at 5,000,000 marks, similarly delivered in the first half of 1927. Free exports to the countries named amounted to 700 tons in the first half of this year, 400 tons in the first half of 1927. Germany's total exportation of dyes was 16,010 tons in the first half of 1928, 13,573 tons in the corresponding period of 1927.

Walter G. Straub, of Montgomery, Straub & Co., cottonseed oil broker, this city, has applied for associate membership in the New York Produce Exchange.

A Norwegian whaling company has placed an order with Workman, Clark, Ltd., Belfast, Ireland, for a tank steamship 600 feet long, of 15,000 tons. This is said to be larger than any existing whale-oil tanker.

The Las Cruces Cotton Oil Mill Company, Las Cruces, N. M., owned by Mesilla Valley farmers, has purchased the cotton oil mill of J. M. White for $86,000. J. M. White will be president and manager of the consolidated concern: L. G. Mayfield, vice-president; N. E. White, secretary, and L. L. White, treasurer.

Exports from Philadelphia

(Continued from page 13)

OIL, CYLINDER—30 bbls, 75 dms, The Angelus, Montevideo
30 bbls, 73 dms, The Angelus, Montevideo
600 bbls, 40 cs, 1,214 dms, The Angelus, Buenos Aires
ENGINE—100 bbls, Maine, Copenhagen
ILLUMINATING—100 bbls, Coahoma County, Antwerp
LUBRICATING—20 bbls, 30 dms, Havana, Kobe
752 bbls, 81 dms, Devonian, Liverpool
969 bbls, Turpin, Hamburg
MINERAL—65 dms, Luxpalile, Oran
MOTOR—4 dms, Maine, Copenhagen
813,716 gls, Bidwell, London
1,232,137 gls, Bidwell, Antwerp
620,580 gls, Bidwell, Rouen
200 bbls, Bidwell, Rouen
100 dms, Luxpalile, Casablanca
35 bbls, Luxpalile, Ceuta
530 cs, Luxpalile, Oran
NEATSFOOT—12 bbls, Coahoma County, Antwerp
2 bbls, 3 dms, Hagen, Hamburg
RED—50 dms, Natirar, Hamburg
50 bbls, Coahoma County, Antwerp
TRANSFORMER—80 dms, Norden, Puerto Mexico
OILCAKE—3,465 bgs, Devonian, Liverpool
2,750 bgs, Coahoma County, Antwerp
PAINT—6 quarter dms, Norden, Havana
PETROLEUM—50 dms, The Angelus, Buenos Aires
20 bbls, 16 dms, Maine, Oslo
10 bbls, Maine, Aarhaus
10 half bbls, Maine, Aarhaus
145 bbls, 31 cs, Maine, Copenhagen
REFINED—83,125 cs, Luveric, Itosaki and/or Osaka
SODA SILICATE—81 dms, Norden, Havana
320 bgs, Norden, Vera Cruz
65 dms, Norden, Vera Cruz
WAX, PARAFFIN, REF'D—51 bgs, Kolsnaren, Malmo
210 bbls, Natirar, Hamburg
100 bbls, Devonian, Liverpool
51 bgs, Turpin, Bremen
508 bgs, Hagen, Hamburg
200 bgs, Luxpalile, Casablanca
PARAFFIN, UNREF'D—589 bbls, New York City, Bristol via Cardiff
42 bbls, Maine, Copenhagen
SCALE—420 bbls, Hagen, Hamburg
2,438 bgs, Norden, Vera Cruz
137 bbls, Manchester Shipper, Manchester and Liverpool

Exports from Port Arthur

ASPHALT—1,200 bbls, Monfiore, Genoa
BENZOL—3,000 tons, Elsa, Hamburg
1,000 tons, Elsa, Antwerp
GASOLINE—3,500 tons, Elsa, Antwerp
GREASE, LUBRICATING—55 dms, 25 cs, King Edwin, Newcastle
KEROSENE—15,000 cs, King Edwin, Newcastle
OIL, LUBRICATING—608 bbls, 20 hf bbls, Monfiore, Genoa
90 dms, King Edwin, Newcastle
PETROLEUM PRODUCTS—1,125 tons Elmsport, Port Neches
WAX—10 bbls, Monfiore, Genoa

Clearance Dates

Elmsport, September 5
Elsa, August 30.
King Edwin, September 7
Monfiore, September 7

Exports from San Francisco

ACID, BORIC—92 bgs, Norfolk, Japan
ASPHALT—88 dms, Atlantic, China
45 bbls, Limon, Canal Zone
21 tons, Seattle, Germany
146 tons, Carisso, Australia
672 tons, Yngaren, Australia
BEANS, VANILLA—20 bxs, Seattle, Germany
BITTERS—50 cs, Seattle, Germany
BORAX—200 bgs, Siberia, China
CHEMICALS—14,700 lbs, Birchbank, China
11,400 lbs, Birchbank, Philippine Islands
100,098 lbs, Norfolk, China
13,085 lbs, Yngaren, Australia
CINNAMON—40 bls, Limon, Colombia
DISTILLATE—97,150 gls, H T Harper, Mexico
GASOLINE—2,452 bbls, Charlie Watson, Mexico
503 bbls, Yngaren, Australia
1,500 cs, Yngaren, Australia
238 bbls, H T Harper, Mexico
1,408,600 gls, H T Harper, Mexico
2,828 bbls, Birchbank, Philippine Islands
GREASE—16,000 lbs, Indra, Colombia
4,225 lbs, Yngaren, Australia
8,025 lbs, H T Harper, Mexico
30 dms, Yngaren, Australia
KEROSENE—10,000 cs, Atlantic, Japan
71 bbls, Indra, Colombia
25 bbls, Yngaren, Australia
4,500 cs, Yngaren, Australia
LARD—62,990 lbs, Indra, Colombia
7,452 lbs, Limon, Colombia
LIME—400 bbls, Birchbank, Philippine Islands
MILK SUGAR—30,000 lbs, Atlantic, China
OIL, COCONUT—28,363 lbs, Limon, Nicaragua
DIESEL—1,075 tons, Panama, Denmark
FUEL—4,771 bbls, Charlie Watson, Mexico
LUBRICATING—19 bbls, Atlantic, Japan
150 dms, Indra, Ecuador
764 bbls, Birchbank, China
10 bbls, Seattle, Germany
7,304 bbls, Carisso, Australia
32,616 gls, Carisso, Australia
7,869 bbls, Carisso, Samoan Islands
500 gls, Carisso, Samoan Islands
717 bbls, Yngaren, Australia
7,200 bbls, Silverash, Japan
23 bbls, H T Harper, Mexico
275 gls, H T Harper, Mexico
SALAD—200 cs, Norfolk, Japan
OILCAKE, COPRA—1,353,460 lbs, Lippe, Germany
PAINT—5 bbls, Pacific Trader, England
488 gls, Birchbank, China
3,840 gls, Birchbank, Philippine Islands
60 gls, Limon, Costa Rica
250 gls, Norfolk, Japan
100 gls, Carisso, Australia
1,877 gls, Yngaren, Australia
60 gls, Silverash, Malay States
PEPPER—50 bgs, Indra, Ecuador
POLISH, METAL—30 cs, Norfolk, China
SALT—16,400 lbs, Yngaren, Australia
SODA ASH—667 bgs, Siberia, Japan
SULPHUR—535 bgs, Birchbank, Philippine Islands
142 bgs, Yngaren, Australia
WAX, PARAFFIN—1,120 lbs, Norfolk, Japan

Clearance Dates

Atlantic, August 22
Birchbank, August 14
Carisso, August 18
H T Harper, August 20
Indra, August 27
Limon, August 16
Lippe, August 20
Norfolk, August 16
Pacific Trader, August 23
Panama, August 14
Point Fermin, August 15
Seattle, August 20
Siberia, August 22
Silverash, August 17
Charlie Watson, August 24
Yngaren, August 17

Exports from Savannah

CLAY—94 tons, Grete, Hamburg
ROSIN, GUM—225 bbls, Eelbeck, Melbourne
75 bbls, Eelbeck, Brisbane
329 bbls, Eelbeck, Sydney
516 bbls, Eelbeck, Adelaide
50 bbls, Eelbeck, Bombay
1,434 bbls, Fluor Spar, Liverpool
896 bbls, Fluor Spar, Manchester
498 bbls, Fluor Spar, Glasgow
29 bbls, Grete, Copenhagen
1,250 bbls, Silverash, Shanghai
97 bbls, Silverash, Kobe
326 bbls, Silverash, Manila
500 bbls, Silverash, Batavia
96 bbls, Silverash, Cheribon
195 bbls, Silverash, Tjilatjap
583 bbls, Silverash, Samarang
48 bbls, Silverash, Padang
196 bbls, Silverash, Hankow
100 bbls, Silverash, Darien
10 bbls, Silverash, Singapore
900 bbls, Liberty Glo, Hamburg
WOOD—126 bbls, Liberty Glo, Hamburg
96 bbls, Liberty Glo, Bremen
99 bbls, Liberty Glo, Rotterdam
50 bbls, Liberty Glo, Antwerp
201 bbls, Fluor Spar, Liverpool
TURPENTINE, GUM—5,020 gls, Fluor Spar, Liverpool
5,000 gls, Fluor Spar, Glasgow
2,973 gls, Grete, Hamburg
20,000 gls, Liberty Glo, Hamburg
15,128 gls, Liberty Glo, Rotterdam
WOOD—2,625 gls, Liberty Glo, Hamburg
8,775 gls, Liberty Glo, Rotterdam
SUBSTITUTES—2,504 gls, Liberty Glo, Hamburg
2,628 gls, Liberty Glo, Havre

Exports from Seattle

ARSENIC—343 bbls, Aberdeen, West Nilus, Montevideo
GLASS, PLATE—52 crts, Africa, Oaska
OIL, DIESEL—3,827 gls, Shunten, Osaka
PHOSPHATE—896 bgs, Grays Harbor, Iollo

Exports from Tacoma

BARK, CASCARA—1,100 lbs, President Pierce, Liverpool
SULPHATE—89 bbls, Africa, Osaka

Containers Returned

New York

BARRELS—146, West India Oil Co, Fort Victoria, Hamilton
500, Maurer Barrel Co, Volendam, Rotterdam
500, Vacuum Oil Co, Vancouver, Hamburg
125, West India Oil Co, Cornelia, San Juan
CARBOYS—30, Grasselli Chem Co, Toloa, Havana
6, W L Long, Maravi, Kingston
CYLINDERS—4, J H Senior, Santa Teresa, Talara
11, Gillespie & Co, Amapala, Kingston
14, A A Lindo & Co, Toloa, Pt Limon
2, R Hoe & Co, Toloa, Havana
6, M F Forwarded Co, Toloa, Havana
1, L W & P Armstrong, San Lorenzo, San Juan
10, Linde Air Prod Co, San Lorenzo, San Juan
6, Liquid Carbonic Co, San Lorenzo, San Juan
9, Schall Pavenstedt & Co, Santa Cruz, Guayaquil
27, J H Senior, Santa Cruz, Cartagena
6, Young & Hyde, Maravi, Kingston
1, W L Long, Lapiaya, Cuba
10, Canach Roldan & Son, Amazone, Maracaibo
5, Liquid Carbonic Co, Amazone, Turks Island
7, T F Wilmot & Co, Orizaba, Havana
5, L W & P Armstrong, Cornelia, San Juan
8, Linde Air Prod Co, Cornelia, San Juan
DRUMS—494, Roessler & Hasslacher Chem Co, Ambridge, Rotterdam
8, L W & P Armstrong, San Lorenzo, St Domingo
43, Colgate & Co, Canadian Leader, Sydney
6, The Monnen Co, Orizaba, Havana
154, Vacuum Oil Co, Vancouver, Hamburg

Boston

DRUMS, IRON—20, Cities Service Refining Co, Newfoundland, St John's
STEEL—121, Gulf Refining Co, Farnorth, St John's
13, A W Dodd & Co, Yarmouth, Yarmouth

Philadelphia

CYLINDERS—160, National Ammonia Co, London Merchant, Glasgow
137, London Merchant, London
DRUMS—2,500, Atlantic Refining Co, West Imboden, Montevideo

New Orleans

BARRELS—50, Texas Oil Co, Favorita, Cristobal
130, Standard Fruit & Steamship Co, Wawa, Ceiba
164, Standard Fruit & Steamship Co, Gatum, Ceiba
DRUMS—121, Standard Fruit & Steamship Co, Granada, Ceiba
36, B H Barrot, Manchioneal, Puerto Castilla
75, R S Garrot, Sosua, Puerto Castilla
37, American Fruit Co, Imperator, Bluefields
25, Republic Mining & Mfg Co, Frederiksborg, Paramaribo
57, Cuyamel Fruit Co, Managua, Bluefields
103, Fruit Dispatch Co, Turrialba, Tela
48, Standard Fruit & Steamship Co, Puerto Cortez
107, Cuyamel Fruit Co, Haworth, Puerto Cortez
16, General Carbonic Co, Haworth, Puerto Cortez

Recent Charters

BONES—4,000 tons, S S Berkdale, Concepcion and Buenos Aires to Philadelphia, $9.75; September
FERTILIZER—750 tons, Sch Frederick H, Boston to Windsor
LOGWOOD—— tons, S S Copperfield, St Marc to North of Hatteras; private terms
MOLASSES—3,472 tons, S S Athelbeach, Havana to Deepwater, prompt; thence Philadelphia to Montreal; private terms
ORE—4,028 tons, S S New Brunswick, Seccondee to Philadelphia; private terms
PETROLEUM, CRUDE—5,100 tons, S S Barendrecht, refined and/or spirit, 21s 9d, Gulf to Cette and St Louis du Rhone; September/October
3,612 tons, S S Luisano, refined and/or spirit, 13s, Black Sea to West Coast of Italy; September
9,498 tons, S S Lunula, 5s, 12 months' time charter, clean; prompt
7,700 tons, motorship Oljaren, refined and/or spirit, 11s 9d, Black Sea to Ertvelde or Hamburg; October
9,000 tons, S S Lustrous, refined and/or spirit, 11s 6d North of Hatteras, option 14s 6d Gulf to French Atlantic; October
9,320 tons, S S Liss, refined and/or spirit, 13s 6d, Black Sea to United Kingdom/Continent; September
PETROLEUM, CRUDE—8,265 tons, motorship Nyholm, fuel oil, 14s, 8 consecutive trips, Black Sea to United Kingdom/Continent; November
6,730 tons, S S Nord Atlantic, lubricating oil, 13s 6d, North Atlantic to United Kingdom/Continent; November
9,100 tons, S S George St Barnes, refined and/or spirit, 68c, San Pedro to North of Hatteras; October
9,000 tons, motorship, Glittre, refined and/or spirit, 16s, Gulf to Gothenburg and Malmo; early October
—— tons, S S Britta, clean, Gulf to Gothenburg and Malmo; early October, 16s
8,000 tons, S S Olterra, 12, option 18 months' time charter, dirty, 4s 9d; October
7,500 tons, S S Virgilia, Black Sea to Medway, 11s 6d, clean; October
4,500 tons, S S Clizia, Black Sea to French Atlantic, 16s 6d, lubricating oil; October
6,000 tons, S S Woensdrecht, California to Villequier and Rouen, 27s; Tampico, Villequier and Rouen, 17s 3d; Gulf, Villequier and Rouen, 16s 6d; clean; October
SODA NITRATE——tons, S S Antonis, Chile to Continent Range, 25s 3d, with option; September/October
6,000 tons, S S ——, Chile to Danzig, option 27s; 2s 6d extra November
7,300 tons, S S Jupiter, Chile to North Spain, 25s 6d; October
SULPHUR——tons, S S ——, Gulf to Harburg, basis $4.50; October

Foreign Trade Openings

Correspondence in regard to any of the following foreign trade opportunities should be addressed to the Bureau of Foreign and Domestic Commerce, Washington, or to any district or cooperative office of the Bureau and not to this paper. When writing give the number of the item:—

Cornstarch, pearl and powdered, for dyeing textiles:—Purchase; Bradford, England (33,397).

Dyes and finishes for textiles.—Purchase; Bradford, England (33,406).

Gasoline and kerosene:—Purchase, Palmerston North, New Zealand (33,387).

Medicines, prepared:—Purchase and agency; La Guaira, Venezuela (33,417).

Oils, lubricating:—Purchase; Bradford, England (33,416).

Paraffin:—Purchase or agency; Hamburg, Germany (33,376).

Paraffin:—Purchase; Bradford, England (33,416).

Perfumery:—Purchase and agency; Milan, Italy (33,373).

Perfumery:—Purchase; Rome, Italy (33,371).

Rosin, gum and wood:—Purchase or agency; Hamburg, Germany (33,376.

Soda, caustic:—Purchase; Hamburg, Germany (33,377).

Toilet preparations.—Purchase; Rome, Italy (33,371).

Dye Imports in August

WASHINGTON, Sept. 18, 1928.

Imports of coaltar dyes in August are reported as follows by the United States Tariff Commission and Department of Commerce:—

Imports of Synthetic Dyes

	1928 Pounds.	Value.	1927 Pounds.	Value.
January	415,156	$327,148	196,620	$186,387
February	478,407	391,351	312,277	262,364
March...	378,191	316,183	404,714	352,414
April...	633,815	505,152	402,788	323,732
May....	382,233	295,969	349,476	265,752
June....	411,662	309,607	318,450	253,054
July....	424,613	334,849	263,162	214,853
August..	389,957	317,879	401,122	339,269
Total 8 mos.	3,514,034	$2,798,138	2,648,604	$2,197,825

Percent by Country of Shipment

	Aug., 1928.	Aug., 1927.	Jan.-Aug., 1928.	Jan.-Aug., 1927.
Germany	64.5	57	63.02	57.05
Switzerland	25	25	23.95	25.41
France	2.4	2.5	1.71	3.10
England	.4	6	2.05	4.49
Belgium	3.6	4	2.80	5.22
Canada	2	4.5	2.11	2.98
Italy	2	1	1.73	1.66
Netherlands	.1	..	.63	0.09

Dye Imports by Ports in August

	Pounds.	Value.
New York	389,037	$316,843
Boston	920	1,036
Total	389,957	$317,879

Leading Dyes Imported in August

	Pounds.
Vat golden yellow GK dbl. paste (s.s.)	16,204
Vat olive R (s.s.)	14,886
Brilliant indigo 4B (s.s.)	14,132
Vat brwn G (s.s.)	13,068
Acid black 2R	12,886

In Bonded Customs Warehouse

	Pounds— Dyes and colors.	Intermediates.
January 31, 1928	609,573	818,695
February 29, 1928	636,566	1,291,636
March 31, 1928	716,032	1,364,965
April 30, 1928	740,239	500,337
May 31, 1928	778,670	1,873,016

Imports of Aromatic Chemicals

	Pounds.	Value.
January	9,994	$12,608
February	15,148	20,983
March	9,243	10,285
April	13,542	20,460
May	13,693	21,341
June	13,157	17,152
July	8,097	9,575
August	12,145	21,536

Imports of Color Lakes

	Pounds.	Value.
January	575	$482
February	984	1,018
March	2,031	1,843
April	19,167	5,169
May	4,058	2,223
June	800	...
July	12,173	7,244
August	270	269

Imports of Other Coaltars

	Pounds.	Value.
January	134,645	$41,886
February	185,603	54,902
March	215,581	56,809
April	178,502	109,283
May	92,699	44,878
June	92,407	57,406
July	105,827	68,229
August	58,188	42,544

Miscellaneous Oils

Stearic Acid Again Advanced by Makers—Crude Menhaden Higher on Stormy Weather —Chinawood Stronger—Tallow Firm

The trend of quotations on miscellaneous oils, fats and greases continued upward last week though there were fewer advances than in recent preceding weeks. Business lacked snap, but demand for moderate quantities was fair, while offerings of many products were light.

Among the vegetable products chinawood oil continued firm. On the coast quotations were maintained at previous levels, while in local quarters higher prices were demanded with reports current of moderate sales at the advance. There was no material change in the situation abroad, the primary market being firm with offerings light.

Coconut oil lacked quotable change, but the tone of the markets here and on the coast was steadier. Offerings from refiners were lighter in the case of future positions. There were no new developments in the situation abroad, the Manila market for copra and oil being steady. Higher prices were demanded for palm oil. Spot supplies are small and offerings for shipment from abroad were limited.

Crude corn and soya bean oils were quiet, consumers being inclined to await new developments in competing product. Rapeseed oil was quiet and easy. Shipments of seed from India to the United Kingdom and the Continent from January 1 to September 5 were about 11,000 tons smaller than in the same time last year.

Tallow offerings were light and the market was steady at the advance noted in the previous week. There was a fair demand. Prices were higher at the weekly auction in London, demand being better, while offerings were moderate. Quotations on cash lard showed irregularity, changes being moderate. Export trade was quiet, but there was a fair domestic demand.

Stocks of lard at Chicago decreased 13,500,000 pounds during the first half of September. Receipts of live hogs in Western markets were moderate. Animal oils were genrally firm, the tendency of some products being upward. Crude menhaden oil was stronger, owing to unfavorable weather, heavy storms being reported along the coast.

Price Changes

Prices were changed during the past week as follows:—

Advanced	Reduced
Chinawood oil, spot, bbls. or drums, ¼c. per lb. arrival at New York, ¼c. per lb.	Lard, city, 25c. per 100 lbs. Western, 35c. to 40c. per 100 lbs.
Lard oil, prime, 25c. per 100 lbs. winter strained, 25c. per 100 lbs. extra, 25c. per 100 lbs. extra No. 1, 25c. per 100 lbs.	Rapeseed oil, refined, spot, 1c. per gal.
Menhaden oil, crude, Baltimore, 1c. per gal.	
Neatsfoot oil, cold pressed, 50c. per 100 lbs. extra, 25c. per 100 lbs.	
Palm oil, Lagos, spot, ¼c. per lb. shipment, ⅜c. per lb. Niger, spot, ¼c. per lb. shipment, ¼c. per lb.	
Stearic acid, double pressed, 1c. per lb. triple pressed, ½c. per lb.	
Tallow oil, 25c. per 100 lbs.	

Comparative Values

Index numbers compiled from twenty-three typical oils, fats and greases on the basis of a normal of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
143.8	142.4	134.6	146.1

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Vegetable Oils

Chinawood.—The markets here and on the coast continued to be characterized by a firm tone. There was no material change in the situation abroad, the primary market being reported as firm with offerings light. Consumers were not inclined to anticipate, but a fair inquiry was noted here at times. Spot supplies are said to be light and in some quarters higher prices were demanded. On the coast quotations were maintained at the levels prevailing in the previous week. San Francisco reported arrivals of 750 drums from Hongkong, 300 tons from Hankow and 653 tons from Shanghai; Seattle 300 tons from Hongkong and a quantity from Shanghai.

Coconut.—A somewhat steadier tone prevailed in domestic markets last week, but there was little change in quotations. Refiners on the coast, however, were not inclined to offer very freely for future delivery. There was a fair inquiry and sales were reported at 7¾c. per pound in tank cars, prompt shipment from the coast, and 8¼c. per pound here. The primary market was steady with offerings generally light, bulk quotations being 7¾c. per pound c.i.f. Pacific Coast, and 8c. asked and 7⅞c. bid, New York. Copra was quiet and steady at 4¾c. per pound for sundried, coast basis.

Corn.—Crude was quiet in the West, consumers being disposed to await further developments in competing product. There was no increase in offerings, however, and the market remained steady. The local market was quiet with quotations nominal.

Olive.—Demand for foots was quieter, but offerings continued light on spot and for arrival, and the market was steady with quotations generally maintained at previous levels. Denatured oil was in fair request and steady. Edible remained firm with demand moderate.

Palm.—The market was stronger with a better inquiry. Spot supplies are small and offerings for shipment from the West Coast were light. A sale of Lagos on spot was reported at a further advance.

Rapeseed.—Refined was rather quiet on spot and the market continued easy. The primary market was steady with offerings light. Shipments of seed from India to the United Kingdom and the Continent from January 1 to September 5 were 72,625 tons against 61,725 tons in the same time last year.

Soya Bean.—The coast market for crude continued quiet owing to the absence of any material change in the primary situation. Offerings were light in all positions. The local market was quiet and steady.

Current prices on oils, fats, and greases, formerly printed on page 3, are now printed at the end of this market report.

Exports of Oil Cake and Meal

Exports from New York last week were:—

	Pounds	
	Oil cake.	Oil meal.
Friday	....	....
Saturday	2,381,120	....
Monday	....	....
Tuesday	399,040	....
Wednesday	200,000	....
Thursday	1,223,680	....
Totals	4,203,840	....
Since January 1:—		
This year	269,850,860	2,559,952
Last year	235,073,408	5,057,000

Chicago Vegetable Oils

CHICAGO, Sept. 21, 1928.

Buying in the Chicago vegetable oil market the past week has been of a routine nature, with little feature, and price movements have been held within an extremely narrow range, with only a few slight changes, and those mostly upward. Coconut oil was virtually unchanged. Chinawood oil seemed a bit more active.

Ruling quotations per pound were:—

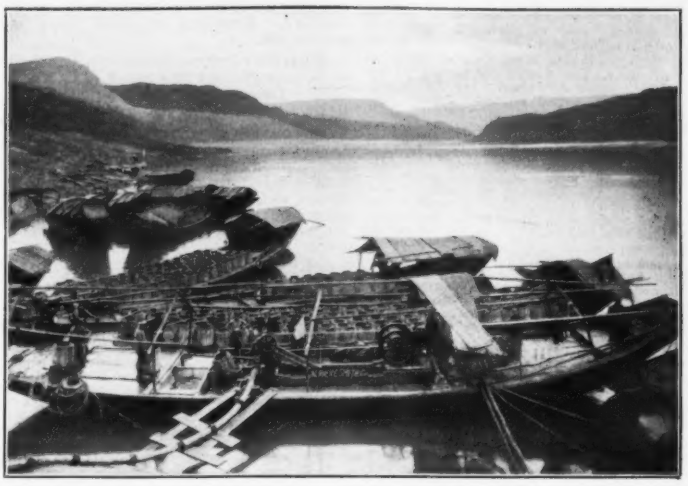
COCONUT (sellers' tanks).—Any shipment this year, 7¾c., with a few sellers asking 7⅞c.; acidulated oil, 7c.; edible, 10½c. to 10¾c.; barrels, less than car lots, 11½c. to 12c.

CORN (sellers' tanks).—Low acid oil was offered at 8¾c. to 9c.; edible, barrels, car lots, 10¾c. to 11¼c.; barrels, less than car lots, 11½c. to 12.1c.

CHINAWOOD (sellers' tanks).—September-

Valuable information on Imports and Exports of Oils and Oil Materials is given in port lists beginning on page 5.

A Modern Touch in Ancient China



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December, 13¾c.; spot, barrels, Chicago, less than car lots, 15¾c.

SOYA BEAN OIL (sellers' tanks).—Prompt shipment, Pacific Coast, 9½c. to 9¾c.; spot, barrels, car lots, Chicago, 11c.

PEANUT (sellers' tanks).—Basis prime crude, 9¼c. to 10c.; edible, barrels, car lots, 12¾c. to 13¼c.; barrels, less than car lots, 13¾c.

San Francisco Vegetable Oils

SAN FRANCISCO, Sept. 17, 1928.

The vegetable oil market is steady with only routine business passing. Prices, however, are well maintained and with cottonseed oil steady, this is having a stabilizing effect on all edible oils..

SOYA BEAN.—Crude soya bean oil f.a.q. is quoted at 10¼c. per pound f.o.b. San Francisco for September shipment from the Orient, with no interest being shown. Barrels are quoted at 10¾c. per pound duty paid ex dock San Francisco for the same position; refined and deodorized soya bean, this article is quoted nominally at 12c. per pound c.i.f. Pacific Coast in bond. Only small intermittent inquiries are noted which are going unfilled owing to the absence of stocks on the Coast. The price is too high in competition with refined cottonseed oil to induce new shipments from the Orient.

CHINA WOOD.—The market suffered a slight recession earlier in the week from 13¾c. to 13½c. but after a few sales at 13⅝c. strengthened to 13¾c., at which point sellers are firm for nearby positions, with futures slightly lower. Hankow quotations are still higher.

PERILLA.—There was great activity in this oil during the week with prices jumping from 12½c. to 14½c. per pound f.o.b. Coast in tankcars, although no sales are reported at the latter figure. Stocks in this country are exhausted and no prices or offerings have yet been received on new crop oil from the Orient.

RAPESEED.—The market has taken a sudden and unexpected drop and tankcars were offering during the week at 10½c. per pound f.o.b. San Francisco. Blown rapeseed oil is unchanged at 13½c. per pound duty paid in barrels San Francisco, but will undoubtedly rule lower later in sympathy with refined.

COPRA.—The market is quiet at 4¾c. per pound with buyers bidding 4⅝c. for sundried copra in bulk San Francisco without success.

LUMBANG.—Nominally 9¾c. per pound San Francisco in drums.

TEA.—Sellers in the Orient are still unable to offer owing to lack of supplies. Last price quoted 18c. per pound in barrels Pacific Coast.

PEANUT.—Oriental, nominally 10c. per pound c.i.f. Pacific Coast in barrels.

VEGETABLE TALLOW.—New season's preliminary prices, 8¾c. per pound to 9c. f.o.b. Pacific Coast, which are quite out of line with buyers' ideas.

Copra

Quiet conditions continued to prevail in domestic markets for copra last week. Offerings were light and on the coast the market was steady with 4¾c. per pound generally quoted for sun dried. There was an absence of new developments of importance in the situation abroad, the primary market being steady.

Fatty Acids

Red Oil.—Former quotations remained in effect, but the market had a firmer tone, owing to the strength of raw material. An improvement in demand was reported in some quarters.

Stearic Acid.—The firmness of raw material was reflected in a stronger market for stearic acid. A further advance in quotations was announced by producers. An active demand was reported and there was also a steady movement on orders previously placed.

Chicago Fatty Oils

CHICAGO, Sept. 21, 1928.

While certain of the vegetable oil acids in the local market were easier, others reflected strength in the raw materials by a stronger tone and somewhat better prices. Corn oil acid gave ground slightly, but coconut moved better at higher prices. Cottonseed held its ground with fair buying, but the boiled down soap stock was quoted lower. Cottonseed foots were unchanged. Stearic acid was strong, and oil was quoted higher in some cases.

Ruling quotations were:—

FATTY ACIDS.—Corn oil, double distilled, tankcars, 8¾c. to 8½c.; barrels, car lots, 8⅞c. to 9c.; barrels, less than car lots, 9⅜c. to 9½c.; coconut, tankcars, 11½c.; barrels, car lots, 11⅞c. to 12c.; barrels, less than car lots, 12½c.; cottonseed, tankcars, 8½c.; barrels, car lots, 9¼c.; barrels, less than car lots, 9½c.; settled cottonseed soap, 60-62 percent basis, 4½c., nominal; boiled down soap stock, 65 percent basis, 4¼c.; barrels, 4¾c.; cottonseed foots, 50 percent basis, 2⅜c.

STEARIC ACID.—High-grade double press, 12½c.; triple press, 14½c.

RED OIL.—Saponified, 9½c. to 10½c.; distilled, 9c. to 9½c.; tallow, acidless, 11c. to 11½c.

Fats and Greases

Grease. — The market retained a steady tone. Demand lacked snap, but there was a fair inquiry for the various grades from local and outside buyers.

Lard.—Cash product showed irregularity, changes in quotations being moderate. Consumers were not disposed to anticipate, but demand was fairly active in a jobbing way. Stocks of lard in Chicago showed a sharp decrease during the first half of September. Receipts of live hogs were moderate.

Ster .—Prices lacked further quotable change, but the market had a firm tone. Demand was fair, with offerings light.

Tallow.—The market was steady at the recent advance, with offerings from producers generally light. There was a fair inquiry. At the weekly auction in London the market was stronger; offerings were 665 casks, of which 464 were sold.

Domestic Grease Receipts

Receipts at New York last week, in packages:—

	Lard.	Tallow.	Grease.
Saturday	5,310	....	....
Monday	3,750	....	....
Tuesday	6,365	....	....
Wednesday	4,338	....	200
Thursday	8,422	....	200
Friday	4,355	....	200
Totals	32,540	....	600
Since January 1:—			
This year	2,102,084	550	10,813
Last year	2,963,782	400	16,830

Grease Exports

Exports from New York during the week ended Sept. 20 included the following:—

	Pounds			
	Lard.	Stearin.	Tallow.	Grease.
Friday	140,000	.....	.....	.....
Saturday	152,892	.....	.....	.....
Monday	3,154,589	.....	.....	552,000
Tuesday	671,625	.....	.....	113,600
Wednesday	143,000	.....	.....	.....
Thursday	236,280	.....	.....	.....
Totals	4,498,366	.....	.....	665,600
Prev. week	3,645,695	91,600	.....	418,400
Last year	10,087,329	.....	.....	958,000
Since Jan. 1—				
This yr.	222,965,833	703,600	317,312	22,204,520
Last yr.	294,736,215	318,000	208,000	37,422,000

Chicago Lard and Tallow

CHICAGO, Sept. 21, 1928.

Pressure to sell was felt in Chicago cash lard as the week wore on, and prices eased off on moderate volume, although earlier in the week at higher prices there had been a somewhat larger volume of dealings in the domestic trade. Buyers began to be more wary. Best grades of tallow were easier, but there was a contrary price movement of limited extent in some other grades of the product. Grease worked quite generally higher on a fair amount of buying. There was the same diversity of price movements in the stearins as in tallows, with changes both ways.

The range of quotations from the opening on Saturday, Sept. 15, to the close on Friday, Sept. 21, is shown in the following tables:—

	Per 100 pounds				
	Open.	High.	Low.	Close.	Previous Friday.
Cash	$12.85	$12.85	$12.37	$12.55	$12.80
Dec.	13.05	13.10	12.57	12.80	13.02
Jan.	13.17	13.21	12.80	13.05	13.17

Other quotations were:—

TALLOW (per pound, tierces).—Edible, 9¾c. to 10c.; fancy, 9¼c. to 9½c.; prime packers', 9c.; No. 1 packers', 8¾c. to 8⅝c.; No. 2 packers', 7⅞c. to 7⅝c.; No. 1 renderers', 8¾c. to 8½c.; prime country, 8⅝c. to 8¾c.; No. 1 country, 8¼c. to 8⅜c.; No. 2 country, 7½c. to 7¼c.; "B" country, 8c.

GREASE (per pound, tierces, unless stated).—Pigs' foot, 9⅜c. to 9½c.; choice white, loose, 9½c.; export choice white, 10⅜c. to 11c.; "A" white, 8⅝c. to 8¾c.; "B" white, 8¼c. to 8½c.; crackling, 7⅜c. to 7⅝c.; yellow, 7⅜c. to 8¼c.; house, 7⅝c. to 7¾c.; brown, 7⅜c. to 7½c.; bone naphtha, 6½c. to 6⅝c.

STEARIN (per pound, barrels).—Prime oleo, 12c. to 12½c.; lard, 16¾c. to 17¼c.; "A" white, grease, 8½c. to 8⅝c.; export "A" white, 10¾c.; yellow grease, 8⅜c.; extra oleo stocks, 12⅜c. to 12⅞c.; No. 2 oleo stocks, 11⅞c. to 12⅛c.

Liverpool Lard and Tallow

Quotations per cwt. on refined American lard in Liverpool last week were as follows:—

	Spot.	Sept.	Oct.	Jan.
	s. d.	s. d.	s. d.	s. d.
Saturday	68 3	68 0	68 6	68 0
Monday	68 6	68 3	68 9	68 3
Tuesday	68 3	68 0	68 6	68 0
Wednesday	67 9	67 6	67 9	67 6
Thursday	67 6	67 0	67 3	67 3
Friday	67 0	66 3	66 9	67 0

Quotations per cwt. on Australian tallow in Liverpool last week were as follows:—

	Choice.	Fine, good mixed.
	s. d.	s. d.
Saturday	43 6	41 0
Monday	43 3	41 0
Tuesday	43 3	41 0
Wednesday	43 3	41 0
Thursday	43 6	41 6
Friday	43 6	41 6

London Tallow Auction

LONDON, Sept. 19, 1928.

Tallow was firmer at the auction today. Offerings were 665 casks, of which 464 were sold. Prices were:

	Today.		Last week.	
	s. d.	s. d.	s. d.	s. d.
Mutton	42 0@44	0	42 6@44	0
Beef	42 0@45	0	41 6@45	0
Beef, good mixed	39 6@42	0	39 0@41	9

Animal Oils

Degras.—Business was on a conservative scale, consumers being averse to anticipating. Offerings were generally light, however, and the market remained steady. Supplies of imported product are reported as rather small.

Lard.—The market was firmer, with prices unchanged to 25c. per 100 pounds higher. A somewhat better inquiry was noted, though consumers were not inclined to purchase in advance of requirements. Export trade was quiet.

Neatsfoot.—Demand was fairly active in a jobbing way and the market was firmer, prices being unchanged to 25c. per 100 pounds higher. Spot supplies in some quarters are reported as light.

Oleo.—Demand was rather quiet and the market had a somewhat easier tone, quotations being unchanged to 25c. per 100 pounds lower.

Tallow.—The market was stronger owing to the firmer position of raw material. Demand was routine.

Movement of Oleo Products

Oleo oil exports and oleo stock receipts at New York last week were:—

	Oleo oil. Exports. Barrels.	Oleo stock. Receipts by rail. Tierces.
Friday	85	....
Saturday	30	100
Monday	3,410	386
Tuesday	1,090	75
Wednesday	350	180
Thursday	100	100
Totals	5,065	835
Since January 1:—		
This year	116,216	54,310
Last year	169,950	47,472

Fish Oils

Cod.—A somewhat better inquiry was noted but aside from this the situation lacked new features of importance. Spot supplies are light and there was no increase reported in offerings from the primary market where shippers were said to be firm in their views. Previous quotations remained in effect.

Menhaden.—Crude was firmer, with offerings light. Reports were current of sales at an advance. Weather conditions were unfavorable for fishing, heavy storms being reported along the coast. The refined market was steady with a fair demand from local and outside buyers.

Sperm.—Demand was routine and the situation lacked new features of interest. The market remained steady.

Whale.—The market for refined was steady. There was a fair demand, though consumers were not disposed to anticipate. Supplies on spot are apparently moderate. Previous quotations were repeated. The market for crude was quiet with offerings light and quotations nominal.

Baltimore Fish Oils

BALTIMORE, Sept. 20, 1928.

Probably because of the unfavorable weather, which has interfered greatly with the work of the menhaden fish fleet down the Chesapeake Bay outside of the Virginia capes, the quotations on fish oil have stiffened again, the latest figure mentioned by the factories being 41c. per gallon, delivered at Baltimore, against 40c. before that. The stocks of oil are being taken up largely with deliveries on contracts booked on a when-and-if-made basis, and there are almost no unsold supplies on hand. The outlook for important additions to the stocks of oil is none too promising.

Chicago Fish Oils

CHICAGO, Sept. 21, 1928.

There was a fair volume of trade, with routine type of inquiries in the Chicago fish oil market. Buyers were holding off on the west coast oils, claiming that lower prices would be necessary to bring out much buying. On the other hand, while there were lower offerings to meet these views in some instances, several important sellers held at higher prices. The trend, however, was somewhat toward slightly easier prices. Ruling quotations were:—Cod, domestic, spot, barrels, 67c. to 69c.; Newfoundland, spot, barrels, 69c. to 71c.; menhaden, pressed, spot, barrels, 67c. to 69c.; unpressed, spot, barrels, 62c. to 64c.; sardine, Pacific coast, sellers' tanks, 40c. to 42½c.; salmon, Pacific coast, sellers' tanks, 42½c. to 45c.

San Francisco Fish Oils

SAN FRANCISCO, Sept. 17, 1928.

SARDINE.—Nominally 7c. per pound San Francisco.

SPERM.—Nominally 42c. per gallon in drums Pacific Coast.

WHALE.—No. 0 and No. 1 nominally 7¼c. per pound; No. 2, 6¾c. per pound San Francisco in bulk.

COD LIVER.—Oriental quoted at 25c. per pound c.i.f. Pacific Coast in barrels.

London Sperm Oil Prices

Quotations on sperm oil in London during last week were:—

	Per cwt. s.	d.
Saturday	28	6
Monday	28	6
Tuesday	28	6
Wednesday	28	6
Thursday	28	6
Friday	28	6

Current Prices

(For late price changes, see page 2)

Animal Oils

Degras, common, domestic, barrels	lb.	.04½@	.06
English, barrels	lb.	.05 @	.05¼
German, barrels	lb.	.03¾@	.04
neutral, domestic, barrels	lb.	.07¾@	.09⅛
English, barrels	lb.	.08¼@	.09
German, barrels	lb.	.06½@	.07
Horse, barrels	lb.	.09¼@	Nom.
Lard, No. 1, barrels	100 lbs.	11.50 @	—
No. 2, barrels	100 lbs.	11.25 @	—
extra, barrels	100 lbs.	13.00 @	—
No. 1, barrels	100 lbs.	12.75 @	—
winter, strained, barrels,	100 lbs.	13.50 @	—
prime, barrels	100 lbs.	16.50 @	—
Neatsfoot, cold pressed, barrels,	100 lbs.	19.00 @	—
extra, barrels	100 lbs.	13.00 @	—
No. 1, barrels	100 lbs.	12.50 @	—
Oleo, No. 1, barrels	100 lbs.	13.25 @	—
No. 2, barrels	100 lbs.	12.25 @	—
No. 3, barrels	100 lbs.	11.00 @	—
Tallow, acidless, barrels	100 lbs.	12.00 @	—

Fish Oils

Cod, Newfoundland, barrels	gal.	.66 @	.67
Herring, coast, tanks	gal.	.40	Nom.
Menhaden, crude, f.o.b. Baltimore, tanks	gal.	.41 @	—
refined, light pressed, barrels,	gal.	.60 @	.61
white, bleached, barrels	gal.	.65 @	.66
yellow, bleached, barrels	gal.	.62 @	.63
Salmon, coast, tanks	gal.	.44	Nom.
Sardine, coast, tanks	gal	.40	Nom.
Sperm, bleached, f.o.b. New Bedford, barrels	gal	.84 @	.86
natural, f.o.b. New Bedford, barrels	gal.	.78 @	.80
Whale, crude, No. 1, coast, tanks	lb.	.07¼	Nom.
No. 2 coast, tanks	lb.	.06¾	Nom.
refined, winter, bleached, barrels	gal.	.80 @	—
extra, barrels	gal.	.82 @	—
natural barrels	gal.	.78 @	—

Vegetable Oils

Castor (see Drugs and Fine Chemicals).			
Chinawood, barrels or drums	lb.	.15¼@	—
September arrival	lb.	.15 @	—
Coast, tanks, spot	lb.	.13¾@	—
September shipment from Coast	lb.	.13¾@	—
October	lb.	.13¾@	—
barrels or drums, 1c. per lb. over tankcar prices.			
Coconut, Ceylon grade, barrels,	lb.	.09¾@	—
Coast, tanks	lb.	.07¾@	.07¾
Cochin grade, barrels	lb.	.09½	Nom.
Manila, barrels	lb.	.09¼@	—
tanks	lb.	.08¼@	.08¼
Coast, tanks	lb.	.07¾@	.07¾
Corn, crude, barrels	lb.	.10½	Nom.
mills, tanks	lb.	.08½@	—
refined, barrels	lb.	.12	Nom.
Mustard, barrels	gal.	.90 @	—
Olive, denatured, barrel	gal.	1.35 @	1.50
edible, barrels	gal.	2.25 @	2.40
foots, green, barrels	lb.	.10¾@	—
Palm, Lagos, casks	lb.	.08½@	.08¾
shipment, casks	lb.	.08¼@	—
Niger, casks	lb.	.07¾@	—
shipment, casks	lb.	.07½@	—
Palm, kernel, casks	lb.	.09¼@	.09¼
Peanut, crude, barrels	lb.	.12	Nom.
mills, tanks	lb.	.09¼	Nom.
refined, deodorized, barrels	lb.	.13½	Nom.
Perilla, barrels	lb.	.13¾	Nom.
Poppy seed, barrels	gal.	1.70 @	—
Rapeseed, blown, barrels	gal.	1.04 @	1.05
refined, barrels	lb.	.83 @	.84
Sesame, refined, drums	lb.	.14¼@	—
Soya bean, blown, barrels	lb.	.13¼@	.13¼
crude, barrels	lb.	.12¼@	.12¾
shipment from Orient, coast, tanks	lb.	.09¼@	.09⅝
Tea, coast, barrels	lb.	.18	Nom.
Vegetable tallow, coast, mats	lb.	.07¾	Nom.

(Continued on page 76)

MEADE-KING, ROBINSON & CO., Ltd.
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The World's Largest Manufacturers of Stearic and Oleic Acids

Industrial and Oil Securities

Oils Advance Under Heavy Trading Volume —Strong Tone on Industrials—Time Loans at Peak for 7 Years—Call Money 7½ Percent

High money rates during the week brought about some weakening in the industrial group, but there was a strong recovery on Friday, and much of the lost ground was made up. Pool operations were general, and it was largely a bull market. High money rates, increased borrowings and other indications of the unfavorable credit situation were all discounted by the market in its upward surge, a number of issues going into new high ground for the year.

The trend of the market for the week, with comparison for the previous three weeks is illustrated by the Reporter's average price for 20 selected industrials as follows:—

September 21	206.12
September 14	215.49
September 7	202.19
August 31	207.31

New highs for the year were made last week by American Metals, American Smelting & Refining, American Zinc, Anaconda, Calumet & Hecla, Cerro de Pasco, Chile Copper, Columbia Gas & Electric, Columbian Carbon, Coty, Inc., General American Tank, Heyden Chemical, Household Products, Kennecott Copper, Lehn & Fink, Liquid Carbonic, Magma Copper, Miami Copper, Nevada Copper, St. Joe Lead. There were no new lows recorded for the week.

Call money renewed on the Stock Exchange at 8 percent Friday and closed ½ percent under this figure. The market had gone to 9 percent on the previous day. For the first time in seven years time money for the shorter periods was held firm at 7 percent. On 60 to 90-day maturities the lending rate was 7¼ to 7½ percent, with 4, 5 and 6 months' loans quoted at 7¼ percent. Commercial paper was quoted at 5¼ percent on prime names and 5½ to 5¾ percent on good names.

Prime bankers' acceptances eligible for purchase of rediscount at Federal Reserve banks were announced by the American Acceptance Council for discount at purchase as follows:—

	Bid.	Asked.
30 days	4⅝	4½
60 days	4⅝	4½
90 days	4⅝	4½
120 days	4¾	4⅝
150 days	5	4⅞
180 days	5	4⅞

Call loan against acceptances, 6½ percent.

	1927 High.	1927 Low.	1928 High.	1928 Low.	Close Sept. 21.
Ahumada Lead..	6½	2¾	5¾	2¾	3¾
Air Reduction..	..	..	81⅜	58	78¼
Allied Chem....	169¼	131	205	146	196
pfd.	124	120	125¾	120½	121½
Allison Drug A..	22	19½	21⅞	8	..
Alum., Ltd.	..	..	134	80	129¾
Am. Ag. Chem..	21½	8¼	23¼	15⅝	20
pfd.	72¾	28⅛	75	55⅜	69⅝
Am. Can, pfd...	141¾	126	147	136¾	..
common	77⅝	43⅝	112¼	70½	107
Am. Chicle	74¾	36	89¾	69	86¼
Am. Cyan. "A"..	37⅝	32¼	45	39⅞	..
"B"	32½	25	53½	30⅞	35½
pfd.	98	84	101	95	..
A. D. S.	15½	9⅜	15½	11	11⅝
Am. Home Prod.	71	36⅜	81¾	59	77½
Am. Linseed..	72½	20¼	135	56⅜	119
pfd.	92½	46⅜	130¼	86½	..
Am. Metals....	49⅜	36⅛	52⅜	39	51
pfd.	113½	108	117½	111½	..
Am. Smelting....	188⅜	132⅝	256½	169	251
pfd.	132½	119¼	142	131	136
Am. Sol. Chm. pf.	29	11	41⅞	25¼	35¾
common	13½	6	28¼	11⅜	21⅞
Am. Zinc	10¼	5¾	49¼	6⅜	46⅜
pfd.	51¼	35	98	40	97
Anaconda	60½	41¾	81⅝	53¾	46⅜
Anglo-C. Nitrate.	31½	14	54	26½	35
Archer-Dan.	63	38	97	54½	80
pfd.	112¾	106	115¼	86⅜	..
Armour, Del., pf.	98⅛	79	97½	86⅜	94½
Armour, Ill., A..	15⅞	9¼	23½	11¼	20¼
Armour, Ill., B..	9¼	5	13½	6⅝	10¼
pfd.	86¼	60	91½	67½	87¼
Atlas Powder....	70	56½	101	63	80½
pfd.	107	98	108	102½	..
Beech-Nut	74¼	50¼	83½	70⅜	76¼
Bon Ami	68½	53⅛	78¾	65¼	74
Borden	169	161	187	152	166
Butte C. & Z....	5½	3¾	10	4⅛	9
Butte & Sup....	11¾	7⅜	16¾	9	..
By-Prod. Coke...	92½	66	80¼	65	..
Calla. L. & Z...	2⅝	1¼	5⅜	1¾	4½
Callu. & Ariz....	123½	61½	120¼	89	111¾
Callu. & Hecla..	24¾	14½	35⅜	20½	34⅜
Can. Ind. Al....	43½	22	50⅜	36¼	..
Cerro de Pasco..	71½	58	104½	61½	100
Certainteed	55¾	42	63½	40⅝	42⅞
1st pfd.	118⅜	106	120	119	..
Certo Corp.	80	46	79½	71	75
Chile Copper....	44⅜	33¼	55½	37⅜	54⅜
Coca-Cola	131	96½	177¾	127	..
Col.-Palm.-Peet..	..	..	123⅜	35⅞	85¼
Col. G. & E....	98¾	82⅞	133⅜	89½	129⅞
pfd.	109⅝	99½	110¼	106	107
Colum. Carbon...	100⅜	66⅞	103⅜	93	98¾
Com. Sol.	262	152	219½	137⅞	207
Cont. Can.	86⅞	58¾	128⅞	80¼	121½
pfd.	126	120	128	123	..
Corn Prod.	68	46⅞	89⅜	64⅜	87⅜
pfd.	142¼	128	146⅜	138½	..
Coty, Inc.	122½	56	227	128	225
Cudahy	58¾	43½	78¼	54	72¼
Davison	48½	26¼	65	34⅜	63⅜
Devoe, Ray	42⅜	36½	61	40	54¾
1st pfd.	114½	101	120	108	..
Diamond Match..	147⅜	115	165	134⅜	..
Drug, Inc.	..	..	118	80	111⅞
DuPont	343⅞	168	405½	310	401
deb.	117	105½	121½	114	116½
Eastman	175¼	126¼	194¼	163	179
pfd.	131½	119¼	180¼	123½	..
Forhan "A"	26	17¾	34	23	31
Gen. Am. Tank..	63¾	46	91	60⅞	87
Glidden	22	14½	30	20⅜	26⅝
prior pfd.	101	86	104⅞	95	..
Louisiana Oil....	18⅛	10	19¾	9⅝	16
pfd.	97	85	94½	80	..
Maracaibo	22¾	12	25½	12½	17⅜
Maracaibo Ebp..	22¾	12	18⅛	15⅜	..
Margay	52	12	48⅛	36½	..
Marland	58½	31	44½	33	40⅝
Mex. Pet.	320	200	360	250	..
Mex. Beab.	9¼	3	39	4⅝	30
Midcontinent ...	39⅝	26½	37½	25⅛	35⅞
pfd.	105	97	115½	103¼	..
Mid. States.	3¾	1⅝	7⅝	2⅜	6⅜
Mount. Prod.	29	22¾	28⅞	23⅝	22
Nat. Supply....	97⅞	76	115	87⅛	104⅞
pfd.	120	114½	119	115	..
Nat. Transit.	24	14¼	32⅜	19⅜	22¼
New Bradford...	5⅞	4⅜	5½	4¼	..
N. Cent. Tex....	12¾	9½	13¼	10⅜	12
new	..	..	62¼	62¼	62¼
Ohio Oil	67⅞	52	68¼	58½	62½
Oil Well Supply..	44⅜	31¼	41	20¼	30
pfd.	110	102¾	110½	97	..
Pan.-Am.	65⅞	40¼	53⅜	38¼	46¼
B	66⅜	40¼	54⅜	37⅝	48
Pan-Am. W "B"	37⅝	16⅜	28⅜	15½	..
Pandem	9⅜	1⅞	6	2½	2⅝
Panhandle	18⅞	2	21⅜	11½	14⅜
Pantepec	12⅛	5½	15¼	8⅛	13
Pennok	13½	5½	7⅜	5½	..
Phillips Pet.	60¼	36¼	44⅝	35¼	43⅞
Pierce Oil.	1½	⅛	5⅛	½	3⅞
pfd.	24	13½	37⅞	16¼	35¼
Pierce Pet.	5½	2½	6⅝	3½	5⅜
Prairie Oil.	55½	45⅝	56	46	48
Prairie P. L....	190	122	223	172	189
Prod. & Ref....	33⅞	16¾	28⅝	16	25⅝
pfd.	50	36⅞	49⅝	41	..
Pure Oil.	32½	25	27½	19	25½
pfd.	115½	111⅜	119	108	..
Reiter-Foster ...	15¼	3½	12⅞	4½	9½
Richfield	28⅜	25⅜	53	23½	49½
Royal Dutch....	54½	44¼	59½	44⅝	58¾
Salt Creek Prod.	35½	27¼	35	26¼	25¼
Shell Union.....	31¾	25⅝	31	23¼	29⅛
Simms Pet.....	20⅜	14¼	25¼	18⅝	22½
Sinclair	22⅜	15	31⅞	17⅜	31⅛
pfd.	104½	91	109¼	102½	107⅞
Skelly Oil.....	37⅞	24⅛	35½	25	35
Solar Ref.	201½	180	188	167	..
South Penn.....	41½	34½	53	26¾	50⅛
South P. L.....	26½	15½	35⅞	12	..
S. W. Pa. P. L.	86	70	102	70	..
S. O. Cal.....	60⅜	50⅜	63⅞	58	59⅞
S. O. Ind.....	81½	64⅜	82⅜	70⅝	76⅞
S. O. Kan.....	20⅞	14⅝	27⅜	15	22
S. O. Ky.....	130	114¼	136½	122¼	129⅝
S. O. Neb.....	49¼	40	45¼	39⅞	43⅝
S. O. N. J.....	41⅜	35½	49	37¾	46⅜
S. O. N. Y.....	34⅛	29⅜	41½	28⅜	36½
pfd.	122	117¼	125	117	..
S. O. Ohio.....	87½	73	85½	71	85¼
Sun Oil.....	34⅞	30	59½	31½	57⅞
pfd.	101⅝	99	110	100	..
Superior	6½	3¼	9½	2½	8⅝
Swan & F.....	21	14½	23½	16	..
T. & P. C. & O.	187⅜	12	171½	12⅝	14⅜
Texas Corp.....	58	45	72⅝	50	70⅛
Tidal Osage.....	26½	17	22⅞	13	18
Tidewater	29¼	19	29⅜	19⅝	..
pfd.	89⅜	85	94½	87	..
Tide W. Assn....	19½	15⅜	25	14⅜	24
pfd.	90⅜	85	90½	81⅞	89
Transcont.	10⅜	3¾	10¼	6¾	8⅝
pfd.	89	63½	90	82½	..
Union Calif.....	56½	39⅝	57	42¾	51¼
Union Tank.....	127½	94	128¼	113⅜	..
Vacuum	149⅞	95½	136¾	72	81½
Venez. Pet.....	7⅝	4½	6⅝	4¾	4¾
White Eagle....	27½	2⅜	29½	20¼	27¾
Woodley	8	4¾	8¼	4⅞	5

* Bid.

Oil Securities

Trading in the oils was along considerably broader lines during the past week, and there was a genreal upturn in prices. Pool operations on a large scale were a feature of the market, a number of issues moving into new high ground on strong buying support. News from the industry was generally of constructive character during the week.

The trend of the market for the week, with comparison for the previous three weeks, is illustrated by the Reporter's average price for 20 selected industrials, as follows:—

September 21	60.51
September 14	56.14
September 7	59.81
August 31	53.85

New highs for the year were made by Atlantic Refining, Imperial Oil, Midcontinent, Pierce Oil preferred, Sinclair, Standard Oil of Ohio, Tide Water Associated preferred and White Eagle. Venezuela Petroleum made a new low for the year.

	1927 High.	1927 Low.	1928 High.	1928 Low.	Close Sept. 21.
Amerada	37⅝	27⅜	38	27⅛	32½
Am. Maracaibo..	7¼	2⅜	6⅝	3½	4⅞
Anglo-Am.	21⅝	17⅝	22⅜	17	19
A. G. W .I.....	43½	30⅝	59⅞	37¼	50¾
pfd.	41¼	29¾	58⅞	38	55½
Atl. Ref.	131⅝	104	184⅞	94⅜	183½
pfd.	119	115½	118¼	116	..
Barnsdall, A....	35½	20⅞	36¼	20	34⅜
Beacon Oil.....	18¾	14	20¼	12¼	18⅞
Borne-Scrim.	69	50	56	48⅝	..
British-Am.	40	20½	40	32⅜	..
Buckeye P. L...	60	45	76	58	..
Cal. Pete.....	32⅞	20	36	24	..
Carib. Syn.....	26	14⅜	23⅞	12½	14⅜
Chesebrough	126	76½	161	117¼	..
Cities Service....	58⅜	40¼	71¼	54	68
pfd.	85⅜	87½	103½	94½	99⅜
pfd. "B".....	8⅞	7⅝	9⅝	8⅞	..
Colombia Syn....	3½	1⅜	2¼	1⅛	1¼
Cons. Royalty...	9¾	6⅜	7⅛	6⅜	..
Cont. v.t.c.....	22⅝	16½	23	13	17½
Creole Pet.....	14⅞	9⅞	17⅜	10¼	12⅜
Crown Cent.....	3	.50	3¼	.76	1⅝
Cum. P. L.....	137	80	144	88	..
Eureka P. L....	68	47	88	64½	..
Freeport-Tex.	105½	34	109¼	55	62¼
Galena	13½	3½	13	4¼	..
Gen. Asphalt....	86¼	65	94⅞	68	78¼
pfd.	144⅞	107¼	141½	110½	117
Gulf Oil.....	118	86¼	147⅜	101⅛	125¼
Houston	174⅜	60¼	167	119	143⅞
Houston Gulf....	12⅜	8½	22½	11⅜	16
Humble	68¼	54	84⅞	59¼	83⅜
Illinois P. L....	182	123¾	245	176½	220
Imperial	64⅜	37⅜	79¼	56⅜	79¼
Indep. O. & G..	32¾	17⅝	31⅞	21⅜	30½
Indian Refining..	12⅜	7¼	39⅝	9	32⅜
Indiana P. L....	92	61	89¼	74⅝	82⅜
Inter. Pet.....	39	28¼	51¼	37	46⅜
Lion Oil.	27½	20	32⅞	20	30½
Lone Star.....	59⅜	37	57	48½	56½

Dividends Reported Since Last Week's Issue

	Stock.	Class.	Amount.	Payable.	Of Record.
American Chicle	Com.	Stk.	100%	.....	.....
Associated Gas & Electric	"A"	Q.	50c.	Nov. 1	Sept. 30
Beacon Oil	Pfd.	Q.	$1.87½	Nov. 15	Nov. 1
Canada Cygsum & Alabastine	Com.	...	75c.	Oct. 1	Sept. 15
Canada Dry Ginger Ale	Com.	Q.	$1.00	Oct. 15	Oct. 1
Canada Dry Ginger Ale	Com.	Ext.	50c.	Oct. 15	Oct. 1
Cities Service	Com.	M.	10c.	Nov. 1	Oct. 15
Cities Service	Com.	Stk.	½%	Nov. 1	Oct. 15
Cities Service	Pfd.	M.	50c.	Nov. 1	Oct. 15
Cities Service	"BB" Pfd.	M.	50c.	Nov. 1	Oct. 15
Cities Service	"B" Pfd.	M.	5c.	Nov. 1	Oct. 15
Commercial Solvents	Com.	Stk.	2%	Nov. 1	Oct. 15
Cudahy Packing	Com.	Q.	$1.00	Oct. 15	Oct. 5
Cudahy Packing	6% Pfd.	S. A.	6 %	Nov. 1	Oct. 20
Cudahy Packing	7% Pfd.	S. A.	3½%	Nov. 1	Oct. 20
Dixon (Joseph) Crucible	Com.	Q.	2 %	Sept. 29	Sept. 20
Federated Metals	Com.	Q.	25c.	Oct. 1	Sept. 21
Freeport-Texas	Com.	Q.	$1.00	Nov. 1	Oct. 15
Freeport-Texas	Com.	Ext.	25c.	Nov. 1	Oct. 15
Heyden Chemical	Pfd.	In.	7%	Oct. 1	Sept. 25
International Printing Ink	Com.	Q.	63½c.	Nov. 1	Oct. 15
International Printing Ink	Pfd.	Q.	$1.50	Nov. 1	Oct. 15
Lion Oil Refining	Com.	Q.	50c.	Oct. 27	Sept. 28
Magma Copper	Com.	Q.	75c.	Oct. 15	Oct. 1
Mascot Oil	Com.	M.	1c.	Sept. 20	Sept. 15
McAndrewe & Forbes	Com.	Q.	65c.	Oct. 15	Sept. 30
McAndrewe & Forbes	Pfd.	Q.	$1.50	Oct. 15	Sept. 30
Merck Corporation	Pfd.	Q.	$1.00	Oct. 1	Sept. 17
Merck Corporation	Pfd.	Q.	$1.00	Jan. 2	Dec. 17
Miller Wholesale Drug	Com.	In. Q.	40c.	Oct. 1	Sept. 20
Monsanto Chemical Works	Com.	Q.	62½c.	Oct. 1	Sept. 20
Mountain & Gulf Oil	Com.	Q.	2c.	Oct. 15	Sept. 20
National Refining	Pfd.	Q.	2%	Oct. 1	Sept. 14
New Bradford Oil	Com.	Q.	12½c.	Oct. 15	Sept. 29
Newmont Mining	Com.	Q.	$1.00	Oct. 15	Sept. 28
North Central Texas Oil	Com.	In.	$1.62½	Oct. 1	Sept. 20
North Star Oil & Refining	Pfd.	Q.	1¾%	Oct. 1	Sept. 15
National Oil Products	Pfd.	Q.	$1.75	Oct. 15	Sept. 30
Northwestern Yeast	Com.	Q.	$3.00	Sept. 15	Sept. 12
Novadel Process	Com.	Q.	25c.	Oct. 1	Sept. 27
Novadel Process	Com.	Ex.	$1.00	Oct. 1	Sept. 27
Novadel Process	Pfd.	Q.	$2.00	Oct. 1	Sept. 27
Owens Bottle	Com.	Q.	75c.	Oct. 1	Sept. 15
Pacific Gas & Electric	Com.	Q.	50c.	Oct. 15	Sept. 29
Prairie Pipe Line	Com.	Q.	$3.50	Oct. 31	Sept. 29
Southern Acid & Sulphur	Com.	...	75c.	Sept. 15	Sept. 10
Swedish Match	"A"	Int.	50 %	.....	.....
Swedish Match	"B"	Int.	5 %	.....	.....
Tide Water Associated Oil	Pfd.	Q.	1½%	Oct. 1	Sept. 17
Washington Oil	Com.	...	$1.00	Sept. 20	Sept. 17
Wood Chemical Products	Com.	Q.	50c.	Oct. 1	Sept. 14
Woodley Petroleum	Com.	Q.	15c.	Sept. 30	Sept. 15

Financial Notes

GOLD DUST CORPORATION has applied to the New York Stock Exchange for authorization to list 275,105 additional voting trust certificates for as many shares of common stock, giving the company a total of 600,105 listed shares. Rights to subscribe to the additional shares have been offered to stockholders at the rate of one new share at $80 for each two shares now held.

AMERICAN HOME PRODUCTS CORPORATION and subsidiaries report for the six months ended June 30, 1928, net profit of $1,345,243 after depreciation, federal taxes, etc., equivalent to $2.52 a share on 534,000 no-par shares of stock, as compared with $601,249, or $2 a share on 300,000 shares in the first six months last year.

RIO TINTO COMPANY, LTD., has concluded an agreement with the Davison Chemical Company for an exchange of shares by which Rio Tinto has taken 90,000 Davison shares and been given the right to subscribe to shares of its subsidiary, the Silica Gel Corporation. The Earl of Denbigh, representing Rio Tinto, has been elected a director of the Davison Chemical Company.

FEDERAL MINING & SMELTING COMPANY reports for the quarter ended July 31 net income of $641,344, equal after preferred dividends to $10.20 per share on 50,400 common shares, as compared with $638,342, or $9.89 a share, in the corresponding period last year.

GALENA SIGNAL OIL COMPANY'S stockholders' committee announces that at the close of business September 15 deposits under the reorganization plan amounted to about 69 percent of the preferred stock and 64 percent of the outstanding common stock, a total insufficient in the committee's judgment to warrant declaring the plan operative. The time in which deposits will be received has been extended to September 28.

ANGLO-SAXON PETROLEUM COMPANY, LTD., affiliated with the Royal Dutch-Shell group, has bought a controlling interest in the Flintkote Manufacturing Company, Boston, manufacturer of asphalt shingles and prepared roofings.

INTERNATIONAL PRINTING INK CORPORATION, in its first statement since consolidation, reports net profit for the six months ended June 30 of $870,779, equal, after preferred dividends, to $2.58 a share on the common stock outstanding. Earnings of the predecessor companies amounted to $1,694,479, or $4.98 a share on common stock, in all 1927.

BRISTOL-MYERS COMPANY has sold, through J. & W. Seligman & Co., this city, 20,000 shares of common stock, no par value. The proceeds will be used to reimburse the company in part for expenditures made in connection with the purchase of the entire capital stock of the Frederick F. Ingram Company.

ACME GLASS COMPANY has sold, through New York bankers, an issue of 40,000 shares of 7½ percent cumulative participating class "A" stock with stock warrants at $11 a share, to yield 6.81 percent. A block of 16,000 shares of class "B" stock has been set aside in the company treasury against the exercise of the stock purchase warrants.

PARAFFINE COMPANIES, INC., directors have approved merger of the company with the Plant Rubber & Asbestos Company through exchange of stock.

CITIES SERVICE COMPANY'S net earnings for the twelve months ended August 31, 1928, were the largest for any twelve months in the company's history, amounting to $32,315,254, an increase of $2,535,947 over the net earnings for the year ended August 31, 1927. Net earnings for August also set a new high record for any August, amounting to $2,734,710. The company's net earnings for the twelve months ended August 31, 1928, were equal to more than ten times the interest and discount on its debentures. Net to stock and reserves amounted to $29,220,747, which was 4.30 times preferred dividends and an increase of $2,012,867 over the same period a year ago, when net to stock and reserves was $27,207,880, or 4.04 times preferred dividends. Net to common stock and reserves amounted to $22,432,213, which was 24.91 percent on the average amount of common stock outstanding, or $4.98 per $20 par value share. This represents an increase of $1,945,564 over the same period a year ago, when net to common stock and reserves was $20,486,649.

UNITED STATES SHEET AND WINDOW GLASS COMPANY stockholders have approved the offer of the Libbey-Owens Sheet Glass Company for the purchase of the company. Libbey-Owens will pay $3,847,346 to redeem the United States Sheet Glass Company preferred stock and in addition will give the company 9,188 shares of Libbey-Owens common and 38,250 shares of United States Sheet common stock now owned by Libbey-Owens. Common stockholders of the United States Sheet Glass Company will receive for each share of common stock one-fourth of a share of Libbey-Owens common.

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Crude Output at High Point for Year—Western Kentucky Oil Advanced—Gasoline Lower In Pennsylvania and Delaware

Strong markets for crude petroleum continued last week, notwithstanding a further increase in production. Western Kentucky crude was advanced during the week, and there were indications of a pending increase on Mid-Continent crude. Gasoline was easing off, although no general declines were reported. Other refinery products held about steady.

Production of 2,504,900 barrels of crude daily during the week ended August 15 was the high for the year the 2,500,000 mark daily, talk of a world curtailment program received greater impetus. Leaders in the movement to stabilize world output made no further announcement during the week, however.

Operators in the Winkler field have cut production further and extended the curb on output six months. The Texas Railroad commission announced September 19 that the proration in the Winkler field will be extended from November 5, the date of expiration of the present agreement, until May 15, 1929. Production in the field will be cut from 175,000 to 150,000 barrels daily on November 5. Test runs in the field during the week indicated potential production of 2,505,902 barrels daily.

Reports from Venezuela during the week indicated that daily production had established another new high record, with aggregate output of 330,000 barrels daily for all fields. This is about 140,000 barrels per day over production in September last year. The bulk of the Venezuelan production is moving to the United States.

Drilling restrictions on one section of the Little River pool in the Seminole area were lifted last week, following the action of one company in moving in rigs for a test, disregarding the shut-down program. It was reported that about 40 tests would be started in this area in the event that the one company goes ahead with its program. Seminole output on September 19 was up to 315,335 barrels, about 15,000 barrels a day over daily production during the past few weeks.

The daily average crude oil production of California for the month of August was 627,255 barrels, compared with 637,237 barrels for the month of July, according to the American Petroleum Institute. The stock figures, covering all products held by the principal marketing companies at all points in the Pacific Coast territory, including British Columbia, Alaska and Hawaii, totaled at the end of August 138,795,848 barrels, a decrease of 957,459 barrels during the month. There were 57 wells completed with an initial daily production of 30,058 barrels compared with 57 wells completed in July with an initial daily production of 65,278 barrels.

Pipe line and tank farm gross domestic crude oil stocks east of the Rocky Mountains increased 3,322,000 barrels in the month of August, 1928, according to returns compiled by the American Petroleum Institute from reports made to it by representative companies.

Current prices on petroleum products, formerly printed on page 3, are now printed at the end of this market report.

The State of the Petroleum Market

Crude petroleum prices were higher on Western Kentucky oil last week. Gasoline at refineries was without change. Service station prices for gasoline were lower in Pennsylvania and Delaware. Comparative details follow:—

	Sept. 21	Sept. 14	Last Year
Crude petroleum prices at well (average for ten fields), per gallon	$1.599	$1.599	$1.341
Gasoline price at refinery (average at four refining centers), per gallon	.1066	.1072	.0756
Gasoline prices at service station (average for ten States), per gallon	.2067	.2067	.1865

Commercial production of crude petroleum in domestic fields, as estimated by the Oil, Paint and Drug Reporter, has amounted this year, from January 1 to September 22, to 632,852,000 barrels, compared with 650,382,000 barrels in the corresponding period in 1927. Commercial production is now at the rate of 2,483,500 barrels a day, compared with 2,480,900 daily at this time last year.

Crude Petroleum

The principal development in the price situation last week was an advance of 15c. a barrel in Western Kentucky crude to $1.63, the Ohio Oil Company making the change. Some talk was heard in the trade regarding the possibility of a further advance in prices for high-gravity Mid-Continent crude, but up to the time of writing no change had been made, although it was felt in many quarters that an increase was pending.

With production continuing above England territory. The market at Mid-Continent points had firmed up a little, no further reductions materializing. Export markets were lower, however.

Thus far there have been no further developments in the projected world curtailment plan sponsored by a number of leading oil executives. It is expected, however, that definite steps will be taken in the near future to make operative some of the plans which have been recently discussed for curtailing operations in South American fields.

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Valuable information on Imports and Exports of Petroleum and Its Products is given in port lists beginning on page 5.

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***Antwerp**
Aomori
***Avonmouth**
***Balboa** (Panama Canal)
***Balik Pappan**
***Bangkok**
***Barton** (Manchester Ship Canal)
***Batavia**
***Bergen**
Boelebaal Ceram
***Bombay**
Bumpyo (Korea)
***Brisbane**
***Buenos Ayres**
***Calcutta**
Canton
***Cape Town**
***Cebu**
***Colombo**
***Colon** (Panama Canal)
***Constanza**
***Copenhagen**
***Curacao**
***Dover**
Falmouth
***Genoa**
***Gibraltar**
***Glasgow**
***Gothenburg**
***Granton**
***Hamburg**
Hankow
***Havana**
***Havre**
***Hong Kong**
Honolulu
***Hull**
Ichang
***Iloilo**
***Iquique**
***Jarrow-on-Tyne**
***Karachi**
***Kobe**
La Guayra (Venezuela)
***Las Palmas**
***Leghorn**
***Lisbon**
***Liverpool**
***London** (Shell Haven and Thames Haven)
***Macassar**
***Madras**
***Malmo**
***Malta**
***Manila**
Maracaibo (Venezuela)
***Marseilles**
***Melbourne**
***Miri**
***Mombasa**
***Montevideo**
***Montreal**
Nagasaki
***Naples**
***New Orleans**
***New York**
***Oslo**
Palembang
***Palermo**
***PangkalanBerandan**
***Penang**
Perim
Pernambuco
***Piraeus**
Portishead
***Portland** (Oregon)
***Port Said**
Port Sudan
Peurto Mexico
Quebec
***Rio de Janeiro**
***Rotterdam**
***Rouen**
Sabang
***Saigon**
***St. Nazaire**
***St. Vincent**
Saitozaki
***San Francisco**
***San Juan** (Porto Rico)
***San Pedro** (Los Angeles Harbour)
Santos
***Seattle** (Washington)
***Shanghai**
***Singapore** (Pulo Bukom)
***Singapore** (Puloe Samboe)
***Singapore** (Tanjong Pagar)
***Sourabaya**
***Southampton**
***Stanlow**
***Stockholm**
***Suez**
Svolvaer
***Sydney**
***Tampico**
Tarakan
***Trieste**
Trinidad
Tuxpan
Vado
***Valparaiso**
***Vancouver**
***Venice**
Vera Cruz
***Wellington** (N. Z.)
***Yokohama**

***Lubricating Oils for Marine purposes are also available at these stations.**

New stations are expected to be ready shortly at **Auckland, Hikoshima** (Shimonoseki).

BUYERS desiring information regarding supplies of and price of **Oil Fuel** for use in Internal-combustion Engines or other purposes should apply to **The Asiatic Petroleum Co., Ltd.,** at the address below.

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Production

With Oklahoma showing a gain of 20,500 barrels, average daily domestic crude petroleum production increased 10,700 barrels to 2,504,900 barrels for the country as a whole during the week ended September 15. This was the second week in nearly a year that daily production had gone over the 2,500,000 barrel mark and not only was the high for 1928, but the first time this year that production for the current week has exceeded that of the comparable week in 1927. Details of production, with comparison for the previous week and the corresponding week last year, follow:—

	Daily average in barrels for week ended Sept. 15 1928.	Sept. 8 1928.	Sept. 17 1927.
Oklahoma	726,550	706,050	782,400
Kansas	100,100	100,450	105,250
Panhandle Texas	62,800	65,400	97,750
North Texas	89,550	91,250	82,250
West Central Texas	55,500	55,350	67,000
West Texas	347,300	349,800	178,200
East Central Texas	21,400	24,200	30,550
Southwest Texas	25,550	25,500	28,750
North Louisiana	39,100	39,150	53,400
Arkansas	84,900	84,350	101,500
Coastal Texas	105,200	107,100	128,750
Coastal Louisiana	21,500	21,950	16,400
Eastern	112,500	113,000	110,500
Wyoming	58,050	55,750	50,050
Montana	9,550	9,750	13,800
Colorado	7,350	7,050	6,650
New Mexico	2,400	2,300	2,550
California	635,600	635,800	639,100
Total	2,504,900	2,494,200	2,494,850

The estimated daily average gross production of the Mid-Continent field including Oklahoma, Kansas, Panhandle, North, West Central, West, East Central and Southwest Texas, North Louisiana and Arkansas, for the week ended September 15 was 1,552,750 barrels, as compared with 1,541,500 barrels for the preceding week, an increase of 11,250 barrels. The Mid-Continent production, excluding Smackover, Arkansas heavy oil, was 1,496,750 barrels, as compared with 1,485,150 barrels, an increase of 11,600 barrels.

Eastern Pipeline Movements

Field runs and pipeline deliveries in New York, Pennsylvania, West Virginia, Kentucky, Tennessee, Ohio and Indiana of latest record are as follows:—

Runs

	Barrels Day.	Month.
September 12	37,239	547,886
September 13	67,448	615,334
September 14, 15 and 16	72,352	687,686
September 17	105,475	793,161
September 18	21,024	814,185

Deliveries

	Barrels Day.	Month.
September 13	60,658	929,648
September 14	58,891	988,539
September 15, 16 and 17	91,387	1,079,926
September 18	156,728	1,236,654
September 19	63,223	1,299,877

Monthly Totals, 1928

	Barrels Runs.	Deliveries.
January	1,463,163	1,551,512
February	1,243,949	1,372,114
March	1,782,134	1,709,807
April	1,374,186	1,695,911
May	1,493,922	1,877,417
June	1,482,713	1,872,768
July	1,334,834	1,743,840
August	1,858,518	1,284,805

Monthly Totals, 1927

	Barrels Runs.	Deliveries.
January	1,742,480	4,378,010
February	1,356,486	1,724,540
March	1,749,992	2,176,862
Aprjll	1,810,009	1,749,770
May	1,868,809	4,491,719
June	1,658,495	1,773,285
July	1,562,285	1,792,841
August	1,460,030	1,879,345
September	1,586,039	1,782,860
October	1,209,684	1,432,652
November	1,233,047	1,460,908
December	1,645,073	1,412,412

Imports

Imports of crude and refined petroleum for the week ended September 15 were 1,310,000 barrels, an average of 187,143 barrels daily. This compared with 2,239,000 barrels, or 319,857 barrels a day, in the previous week and a daily average of 236,892 barrels for the four weeks ended September 15. Comparative details follow:—

	Barrels received Week ended Sept. 15.	Week ended Sept. 8.
At Atlantic Coast ports—		
Baltimore	80,000	300,000
Boston	70,000	157,000
New York	429,000	*917,000
Philadelphia	297,000	274,000
Others	97,000	263,000
Total	973,000	1,920,000
Daily average	139,000	274,286
At Gulf Coast ports—		
Galveston district	....	....
New Orleans and Baton Rouge	287,000	319,000
Port Arthur and Sabine district	....	....
Tampa	50,000	....
Total	337,000	319,000
Daily average	48,143	45,571
At att United States ports—		
Total	1,310,000	2,239,000
Daily average	187,143	319,857
Daily average four weeks ended	236,892	254,571

* Revised.

Movement of California Oil

Receipts of California crude and refined oil at Atlantic and Gulf Coast ports for the week ended September 15 totaled 226,000 barrels, an average of 32,286 barrels daily, against 558,000 barrels, a daily average of 79,714 barrels for the previous week and a daily average of 54,750 barrels for the four weeks ended September 15. Comparative details follow:—

	Barrels received Week ended Sept. 15.	Week ended Sept. 8.
At Atlantic Coast ports—		
Baltimore	63,000	190,000
Boston	....	....
New York	....	....
Philadelphia	163,000	*337,000
Others	....	31,000
Total	226,000	558,000
Daily average	32,286	79,714
At Gulf Coast ports	....	....
Daily average	....	....
Total Atlantic and Gulf Coast ports	226,000	558,000
Daily average	32,286	79,714
Daily average four weeks ended	54,750	60,321
Oils Received		
Crude	83,000	....
Gasoline	143,000	....
Total	226,000	558,000

* Revised.

Price Changes in Past Month

September 1—Crude in Stoll lines at Oil City, Ky., advanced 10c. a barrel.

September 14—Pennsylvania crude advanced 15c. a barrel.

September 14—Somerset crude advanced 5c. a barrel.

September 17—Western Kentucky crude advanced 15c. a barrel.

Prices at Well

The following prices are those paid by the pipelines for crudes as delivered from the wells, with a comparison for the corresponding period of 1927:—

Pennsylvania-Ohio-West Virginia*

	Per barrel, 1928.	1927.
Cabell, W. Va	$1.45	$1.40
Corning, Ohio	1.80	1.45
†Lima	1.60	1.71
Pennsylvania—		
In N. Y. Transit lines	3.35	2.65
Bradford oil in Natl. Transit lines	3.35	2.65
Other Pa. oil in Natl. Transit lines	3.25	2.55
In Southwest Penn lines	3.25	2.55
In Eureka lines	3.15	2.50
In Buckeye lines	3.00	2.35
Gaines, Pa.	2.25	2.25
Kelster, Pa.	1.20	1.10
†Wooster, Ohio	1.67	1.57

* Posted by Joseph Seep Purchasing Agency.
† Posted by Ohio Oil Company.

Oklahoma-Kansas-North, East and Central Texas*

	Per barrel, 1928.	1927.
Midcontinent, 24 deg. and low	.60	1.10
25 deg. to 25.9 deg.	1.10	1.10
26 deg. to 26.9 deg.	1.10	1.10
27 deg. to 27.9 deg.	.75@ .81	1.10
28 deg. to 28.9 deg.	.75@ .85	1.12
29 deg. to 29.9 deg.	.75@ .95	1.16
30 deg. to 30.9 deg.	.90	1.18
31 deg. to 31.9 deg.	1.05	1.20
32 deg. to 32.9 deg.	1.16	1.22
33 deg. to 33.9 deg.	1.21	1.24
34 deg. to 34.9 deg.	1.26	1.26
35 deg. to 35.9 deg.	1.31	1.28
36 deg. to 36.9 deg.	1.36	1.30
37 deg. to 37.9 deg.	1.41	1.32
38 deg. to 38.9 deg.	1.46	1.34
39 deg. to 39.9 deg.	1.51	1.36
40 deg. to 40.9 deg.	1.56	1.38
41 deg. to 41.9 deg.	1.56	1.38
42 deg. to 42.9 deg.	1.66	1.42
43 deg. to 43.9 deg.	1.71	1.41
44 deg. to 44.9 deg.	1.76	1.46
45 deg. to 45.9 deg.	1.81	1.48
46 deg. to 46.9 deg.	1.86	1.50
47 deg. to 47.9 deg.	1.91	1.52
48 deg. to 48.9 deg.	1.96	1.54
49 deg. to 49.9 deg.	2.01	1.56
50 deg. to 50.9 deg.	2.06	1.58
51 deg. to 51.9 deg.	2.11	1.60
52 deg. and above	2.16	1.62
Corsicana	1.25	1.25

* Posted by Sinclair Oil and Gas Company, Cosden Pipe Line Company, Champlin Refining Company, Gypsy Oil Company, Marland Oil Company, Prairie Oil & Gas Company, Humble Oil & Refining Company, Texas Company, and Carter Oil Company.

(Note:—Inside prices in above schedule posted only by Magnolia Petroleum Company.)

West Texas*

Crane, Upton, Winkler, Pecos and Crockett counties, all gravities	.65	.60
Glasscock county	.60@ .89	.60
Iatan (all gravities)	.93	.60

* Posted by Kay County Gas Company and Humble Oil & Refining Company.

Texas Panhandle*

Carson and Hutchinson counties—		
Below 32 deg.	.69	.75
32 deg. to 32.9 deg.	.76	.75
33 deg. to 33.9 deg.	.81	.75
34 deg. to 34.9 deg.	.86	.75
35 deg. to 35.9 deg.	.91	.75
36 deg. to 36.9 deg.	.96	.75
37 deg. to 37.9 deg.	1.01	.75
38 deg. to 38.9 deg.	1.06	.75
39 deg. to 39.9 deg.	1.11	.75
40 deg. to 40.9 deg.	1.16	.75
41 deg. to 41.9 deg.	1.21	.75
42 deg. to 42.9 deg.	1.26	.75
43 deg. to 43.9 deg.	1.31	.75
44 deg. and above	1.36	.75
Wheeler county—		
Below 30 deg.	.65	.75
30 deg. to 30.9 deg.	.72	.75
31 deg. to 31.9 deg.	.79	.75
32 deg. to 32.9 deg.	.86	.75
33 deg. to 33.9 deg.	.91	.75
34 deg. to 34.9 deg.	.96	.75
35 deg. to 35.9 deg.	1.01	.75
36 deg. to 36.9 deg.	1.06	.75
37 deg. to 37.9 deg.	1.11	.75
38 deg. to 38.9 deg.	1.16	.75
39 deg. to 39.9 deg.	1.21	.75
40 deg. to 40.9 deg.	1.26	.75

NO INWARD PROJECTIONS - NO SEAMS - NO RIVETS

Hackney Dip Barrels are easily cleaned and capacities remain constant

Take a look at the inside of your old dip barrels. They're almost sure to be caked with hardened gum that was never cleaned out. And the sides of the oldest barrels are probably drawn in until the bilge has practically disappeared. Under such conditions capacities frequently shrink one-fifth.

Hackney Seamless Steel Barrels have a perfectly smooth inside. There are no seams or rivets—the entire barrel is drawn from a single piece of steel. And the upper rim is curled outwardly presenting a full, unobstructed opening.

This makes the barrel so easy to clean that gum need never be allowed to harden on the sides. And original capacities can always be maintained.

The Hackney barrel is galvanized by our special process with an extra heavy coating of zinc.

Write for complete information that will show you the way to new production costs.

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Hackney
MILWAUKEE

Texas Panhandle* (Cont'd)

	Per barrel 1928.	1927.
Wheeler County (cont'd)—		
41 deg. to 41.9 deg.	1.31	.75
42 deg. to 42.9 deg.	1.36	.75
43 deg. to 43.9 deg.	1.41	.75
44 deg. and above.	1.46	.75
Gray county—		
Below 29 deg.	.68	.80
29 deg. to 29.9 deg.	.73	.82
30 deg. to 30.9 deg.	.78	.84
31 deg. to 31.9 deg.	.83	.86
32 deg. to 32.9 deg.	.96	.88
33 deg. to 33.9 deg.	1.01	.90
34 deg. to 34.9 deg.	1.06	.92
35 deg. to 35.9 deg.	1.11	.94
36 deg. to 36.9 deg.	1.16	.96
37 deg. to 37.9 deg.	1.21	.98
38 deg. to 38.9 deg.	1.26	1.00
39 deg. to 39.9 deg.	1.31	1.02
40 deg. to 40.9 deg.	1.36	1.04
41 deg. to 41.9 deg.	1.41	1.06
42 deg. to 42.9 deg.	1.46	1.08
43 deg. to 43.9 deg.	1.51	1.10
44 deg and above.	1.56	1.12
†Panola county—		
32 deg. to 32.9 deg.	.96	.96
33 deg. to 33.9 deg.	.98	.98
34 deg. to 34.9 deg.	1.00	1.00
35 deg. to 35.9 deg.	1.02	1.02
36 deg. to 36.9 deg.	1.04	1.04
37 deg. to 37.9 deg.	1.06	1.06
38 deg. and above.	1.08	1.08

* Posted by Humble Oil & Refining Company, Gulf Pipe Line Company, Magnolia Petroleum Company, and Kay County Gas Company.
† Posted by Sun Oil Company and National Refining Company.

Indiana-Illinois*

Illinois	1.55	1.77
Indiana	1.37	1.47
Plymouth Ill.	1.28	1.33
Princeton, Ind.	1.55	1.60
Waterloo	1.25	1.35
Saginaw (Mich.)	1.90@2.05	2.03

* Posted by Ohio Oil Company.

Kentucky-Tennessee*

Ragland	.95	.95
Somerset grade in Cumberland lines	1.75	1.50

* Posted by Joseph Seep Purchasing Agency

Gulf Coast*

(Goose Creek, Hull, Liberty, West Columbia, Orange, Boling, Sour Lake, Pierce Junction, and Spindletop Junction.)

Grade A	1.20	1.20
Grade B, 25 deg. to 25.9 deg.	1.15	1.15
26 deg. to 26.9 deg.	1.17	1.17
27 deg. to 27.9 deg.	1.19	1.19
28 deg. to 28.9 deg.	1.21	1.21
29 deg. to 29.9 deg.	1.23	1.23
30 deg. to 30.9 deg.	1.25	1.25
31 deg. to 31.9 deg.	1.27	1.27
32 deg. to 32.9 deg.	1.29	1.29
33 deg. to 33.9 deg.	1.31	1.31
34 deg. to 34.9 deg.	1.33	1.33
35 deg. to 35.9 deg.	1.35	1.35
†36 deg. to 36.9 deg.	1.37	1.37
37 deg. to 37.9 deg.	1.39	1.37
38 deg. to 38.9 deg.	1.41	1.37
39 deg. to 39.9 deg.	1.43	1.37
40 deg. and above.	1.45	1.37
Laredo	.95	.95
Piedras Pintas	1.85	1.85
Evangeline	1.15	1.15
Jennings, La.	1.05	1.05
Saratoga, Batson, Dayton	1.20	1.40

* Posted by Humble Oil & Refining Company, Gulf Pine Line Company, Magnolia Petroleum Corporation, Texas Company and Sun Pipe Line Company.
† 36 deg. and higher posted only by Texas Company.

South, Central and Southwestern Texas*

Luling	1.00	1.00
Mirando	1.00	1.00
Rockdale-Minerva—		
below 38 deg.	1.25	1.25
38 deg. to 38.9 deg.	1.27	1.25
39 deg. to 39.9 deg.	1.29	1.25
40 deg. and above.	1.31	1.25
†Thrall	...	...
Callinan	1.75	1.75
**Somerset—		
32 deg. to 32.9 deg.	1.05	1.05
33 deg. to 33.9 deg.	1.07	1.07
34 deg. to 34.9 deg.	1.09	1.09
35 deg. to 35.9 deg.	1.11	1.11
36 deg. to 36.9 deg.	1.13	1.13
37 deg. to 37.9 deg.	1.15	1.15
38 deg. and above.	1.17	1.17
*Lytton Springs—		
Below 33 deg.	1.05	1.05
33 deg. to 33.9 deg.	.107	1.07
34 deg. to 34.9 deg.	1.09	1.09
35 deg. to 35.9 deg.	1.11	1.11
36 deg. to 36.9 deg.	1.13	1.13
37 deg. to 37.9 deg.	1.15	1.15
38 deg. to 38.9 deg.	1.17	1.17
39 deg. to 39.9 deg.	1.19	1.19
40 deg. to 40.9 deg.	1.21	1.21
41 deg. to 41.9 deg.	1.23	1.23
42 deg. to 42.9 deg.	1.25	1.25
43 deg. to 43.9 deg.	1.27	1.27
44 deg. to 44.9 deg.	1.29	1.29
45 deg. to 45.9 deg.	1.31	1.31
46 deg. to 46.9 deg.	1.33	1.33
47 deg. to 47.9 deg.	1.35	1.35
48 deg. to 48.9 deg.	1.37	1.37
49 deg. to 49.9 deg.	1.39	1.39
50 deg. to 50.9 deg.	1.41	1.41
51 deg. to 51.9 deg.	1.43	1.43
52 deg. and above.	1.45	1.45

* Posted by Texpata Pipe Line Company, Humble Pipe Line Company and Magnolia Petroleum Company.
† Same as Midcontinent, less 19½c. per 100 pounds freight.
** Posted by Grayburg Pipe Line Company and Pioneer Oil and Renning Company.

California*

Signal Hill, Huntington Beach, Inglewood†, Olinda-Brea Canyon, Torrance and Richfield—		
14 deg. to 14.9 deg.	.85	.85
15 deg. to 15.9 deg.	.85	.85
16 deg. to 16.9 deg.	.85	.85
17 deg. to 17.9 deg.	.85	.85
18 deg. to 18.9 deg.	.85	.85
19 deg. to 19.9 deg.	.85	.85
20 deg. to 20.9 deg.	.85	.85
21 deg. to 21.9 deg.	.89	.86
22 deg. to 22.9 deg.	.93	.87
23 deg. to 23.9 deg.	.97	.88
24 deg. to 24.9 deg.	1.01	.89
25 deg. to 25.9 deg.	1.05	.90
26 deg. to 26.9 deg.	1.09	.92
27 deg. to 27.9 deg.	1.13	.94
28 deg. to 28.9 deg.	1.17	.96
29 deg. to 29.9 deg.	1.21	.98
30 deg. to 30.9 deg.	1.25	1.00
31 deg. to 31.9 deg.	1.30	1.03
32 deg. to 32.9 deg.	1.35	1.06

† Inglewood posted only up to 28.9 degrees;

California* (Cont'd)

	Per barrel 1928.	1927.
Olinda-Brea Canyon to 30.9 degrees. Montebello, Whittier† and La Habra†—		
14 deg. to 20.9 deg.	.85	.85
21 deg. to 21.9 deg.	.89	.85
22 deg. to 22.9 deg.	.92	.85
23 deg. to 23.9 deg.	.95	.85
24 deg. to 24.9 deg.	.98	.85
25 deg. to 25.9 deg.	1.01	.86
26 deg. to 26.9 deg.	1.04	.87
27 deg. to 27.9 deg.	1.07	.88
28 deg. to 28.9 deg.	1.10	.89
29 deg. to 29.9 deg.	1.13	.90
30 deg. and above.	1.16	.91

† Whittier and La Habra posted only to 22.9 degrees.

Athens, Rosencrans, and Dominguez—		
24 deg. to 24.9 deg.	1.01	.89
25 deg. to 25.9 deg.	1.05	.90
26 deg. to 26.9 deg.	1.09	.92
27 deg. to 27.9 deg.	1.13	.94
28 deg. to 28.9 deg.	1.17	.96
29 deg. to 29.9 deg.	1.21	.98
30 deg. to 30.9 deg.	1.25	1.00
31 deg. to 31.9 deg.	1.30	1.03
32 deg. to 32.9 deg.	1.35	1.06
33 deg. to 33.9 deg.	1.41	1.09
34 deg. to 34.9 deg.	1.47	1.12
35 deg. to 35.9 deg.	1.53	1.15
36 deg. to 36.9 deg.	1.59	1.18
37 deg. to 37.9 deg.	1.65	1.21
38 deg. to 38.9 deg.	1.71	1.24
39 deg. to 39.9 deg.	1.77	1.27
40 deg. to 40.9 deg.	1.83	1.30
41 deg. to 41.9 deg.	1.89	1.33
42 deg. to 42.9 deg.	1.95	1.36
Coyote Hills—		
14 deg. to 20.9 deg.	.85	.85
21 deg. to 21.9 deg.	.88	.85
22 deg. to 22.9 deg.	.91	.87
23 deg. to 23.9 deg.	.94	.88
24 deg. to 24.9 deg.	.97	.89
25 deg. to 25.9 deg.	1.00	.90
26 deg. to 26.9 deg.	1.04	.91
27 deg. to 27.9 deg.	1.08	.92
28 deg. to 28.9 deg.	1.12	.93
29 deg. to 29.9 deg.	1.16	.94
30 deg. to 30.9 deg.	1.20	.95
Santa Fe Springs—		
21 deg. to 24.9 deg.	.85	.85
25 deg. to 25.9 deg.	.89	.86
26 deg. to 26.9 deg.	.92	.87
27 deg. to 27.9 deg.	.95	.88
28 deg. to 28.9 deg.	.98	.89
29 deg. to 29.9 deg.	1.01	.91
30 deg. to 30.9 deg.	1.04	.93
31 deg. to 31.9 deg.	1.07	.95
32 deg. to 32.9 deg.	1.10	.97
33 deg. to 33.9 deg.	1.15	.99
34 deg. to 34.9 deg.	1.20	1.01
35 deg. to 35.9 deg.	1.25	1.03
36 deg. to 36.9 deg.	1.30	1.06
37 deg. to 37.9 deg.	1.35	1.09
38 deg. and above.	1.40	1.12
39 deg. to 39.9 deg.	1.45	1.15
Midway-Sunset - Elk Hills, Lost Hills, Kern River†, Newhall†, McKittrick† and Buena Vista Hill—		
14 deg. to 19.9 deg.	.75	.75
20 deg. to 20.9 deg.	.77	.77
21 deg. to 21.9 deg.	.79	.79
22 deg. to 22.9 deg.	.82	.81
23 deg. to 23.9 deg.	.86	.83
24 deg. to 24.9 deg.	.90	.85
25 deg. to 25.9 deg.	.95	.87
26 deg. to 26.9 deg.	1.00	.89
27 deg. to 27.9 deg.	1.05	.91
28 deg. to 28.9 deg.	1.10	.93
29 deg. to 29.9 deg.	1.16	.96
30 deg. to 30.9 deg.	1.22	.99
31 deg. to 31.9 deg.	1.28	1.02
32 deg. to 32.9 deg.	1.34	1.05
33 deg. to 33.9 deg.	1.40	1.08

† Newhall, McKittrick and Kern River posted only to 19.9 degrees; Midway, Sunset, Elk Hills and Buena Vista Hills to 33.9 degrees.

Wheeler Ridge and Coalinga—		
14 deg. to 19.9 deg.	.75	.75
20 deg. to 20.9 deg.	.77	.76
21 deg. to 21.9 deg.	.79	.77
22 deg. to 22.9 deg.	.82	.78
23 deg. to 23.9 deg.	.85	.79
24 deg. to 24.9 deg.	.88	.80
25 deg. to 25.9 deg.	.91	.81
26 deg. to 26.9 deg.	.94	.82
27 deg. and above.	.98	.83
28 deg. to 28.9 deg.	1.02	.85
29 deg. to 29.9 deg.	1.06	.87
30 deg. to 30.9 deg.	1.10	.89
31 deg. to 31.9 deg.	1.14	.91
32 deg. to 32.9 deg.	1.18	.93
33 deg. to 33.9 deg.	1.22	.95
34 deg. to 34.9 deg.	1.26	.97
35 deg. and above.	1.30	.99

* California fields posted by Standard Oil of California and Union Oil Company.

Louisiana and Arkansas*

Bellevue	1.25	1.25
Bull Bayou, Caddo, Haynesville, El Dorado, Homer, Crichton, De Soto—		
28 deg. and below.	.81	1.10
28 deg. to 28.9 deg.	.88	1.12
29 deg. to 29.9 deg.	.95	1.14
30 deg to 30.9 deg.	1.02	1.16
31 deg. to 31.9 deg.	1.09	1.18
32 deg. to 32.9 deg.	1.16	1.20
33 deg. to 33.9 deg.	1.21	1.22
34 deg. to 34.9 deg.	1.26	1.24
35 deg. to 35.9 deg.	1.31	1.26
36 deg. to 36.9 deg.	1.36	1.28
37 deg. to 37.9 deg.	1.41	1.30
38 deg. to 38.9 deg.	1.46	1.32
39 deg. to 39.9 deg.	1.51	1.34
40 deg. to 40.9 deg.	1.56	1.36
41 deg. to 41.9 deg.	1.61	1.38
42 deg. to 42.9 deg.	1.66	1.42
43 deg. to 43.9 deg.	1.71	1.42
44 deg. and above.	1.76	1.44@1.60
Pine Island	1.40	1.40
Smackover, below 24 deg.	.75	1.00
24 deg. and above.	.90	1.00@1.10
*Stephens, below 28 deg.	.75	1.00
28 deg. to 28.9 deg.	.79	1.02
29 deg. to 29.9 deg.	.84	1.04
30 deg. to 30.9 deg.	.87	1.06
31 deg. to 31.9 deg.	.91	1.08
32 deg. and above.	.95	1.10
†Urania	.85	.90
**Calion (East El Dorado)	.90	1.00
**Starks Dome, La.	1.40	1.40
Cotton Valley		
28 deg. and below.	.81	1.00
28 deg. to 28.9 deg.	.88	1.00
29 deg. to 29.9 deg.	.95	1.00
30 deg. to 30.9 deg.	1.02	1.00
31 deg. to 31.9 deg.	1.09	1.00
32 deg. to 32.9 deg.	1.16	1.00
33 deg. to 33.9 deg.	1.21	1.00
34 deg. to 34.9 deg.	1.26	1.00
35 deg. to 35.9 deg.	1.31	1.00
36 deg. to 36.9 deg.	1.36	1.00
37 deg. to 37.9 deg.	1.41	1.00
38 deg. to 38.9 deg.	1.46	1.00
39 deg. to 39.9 deg.	1.51	1.00
40 deg. to 40.9 deg.	1.56	1.00
41 deg. to 41.9 deg.	1.61	1.00
42 deg. to 42.9 deg.	1.66	1.00

Louisana-Arkansas*—(Cont'd)

	Per barrel 1928.	1927.
Cotton Valley (Cont'd)—		
43 deg. to 43.9 deg.	1.71	1.00
44 deg. and above.	1.76	1.00
24 deg. and above.	.90	1.15@1.21

* Posted by—The Texas Company.
Standard Oil Company of Louisiana.
Gulf Pipe Line Company.
Magnolia Petroleum Company.
** Posted by Gulf Pipe Line Company only.
† Posted by Paragon Development Company.
‡ Posted by Atlantic Oil Producing Company.

Western Kentucky*

Western Kentucky, all gravities	1.63	1.33
‡Clay county, Tenn.	1.50	1.50
‡Cumberland, Barren and Monroe counties	1.50	1.50
†Oil in lines of Stoll Oil Refining Company in Oil City, Ky.	1.65	1.50

* Posted by Indian Refining Company and Ohio Oil Company.
† Posted by Stoll Oil Refining Company.
‡ Posted by Paragon Development Company.

Rocky Mountain*

Big Muddy	1.33	1.25
Byron	1.33	2.50
Cat Creek	1.33	1.33
Elk Basin	1.48	1.33
Greybull	1.33	1.33
Hamilton Dome	.85	1.35
Kevin	1.20	1.20
Lance Creek	1.48	1.33
Lake Basin	2.20	2.25
Grass Creek, light	1.48	1.33
heavy	.90	.68
Lander	.80	1.33
Lost Soldier	.95	.95
Mule Creek	1.10	1.30
Notches	.65	.65
Osage	1.33	1.33
Poison Spider	1.00	1.00
Rock Creek	1.33	1.25
†Salt Creek—		
28 deg. to 28.9 deg.	.88	1.12
29 deg. to 29.9 deg.	.95	1.14
30 deg. to 30.9 deg.	1.02	1.16
32 deg. to 32.9 deg.	1.99	1.20
33 deg. to 33.9 deg.	1.21	1.22
34 deg. to 34.9 deg.	1.26	1.24
35 deg. to 35.9 deg.	1.31	1.26
36 deg. to 36.9 deg.	1.36	1.28
37 deg. to 37.9 deg.	1.41	1.34
38 deg. to 38.9 deg.	1.46	1.32
39 deg. to 39.9 deg.	1.51	1.34
40 deg. to 40.9 deg.	1.56	1.36
41 deg. to 41.9 deg.	1.66	1.38
42 deg. to 42.9 deg.	1.66	1.40
43 deg. to 43.9 deg.	1.71	1.42
44 deg. and above.	1.76	1.44@1.60
Sunburst	1.65	1.35
Torchlight	1.33	1.33
Hogback, N. Mex.	1.38	1.38
Artesia, N. Mex.	1.08	1.00
Rex Lake	1.10	1.10
*Florence, Colo.	1.60	1.60
*Moffatt, Colo.	.85	.85
Tow Creek, Colo.	.72	.72
Ferris	1.60	1.20
Pilot Butte	1.75	..
Simpson Ridge	.80	..
South Casper Creek	1.00	..

* Posted by Texas Company.
† Posted by Midwest Refining Company and Ohio Oil Company.
(Note:—Osage, Cat Creek, Salt Creek and Hogback posted by Midwest Refining Company; remainder by Ohio Oil Company, unless otherwise noted; Grass Creek and Elk Basin posted by both companies.)

Canada*

Oil Springs	2.07	2.18
Petrolia	2.00	2.11
(Add 26½c. per barrel to each grade to include allowance by government to producers.)		

* Posted by Imperial Oil Company, Ltd.

Mexico

F.o.b. terminals Mexican ports (based on contract)—		
* Tuxpam	.93	1.35
† Panuco	1.10	1.16

* Plus 26.35 cents tax.
† Plus 16.373 cents tax.

Refinery Products

Gasoline held about steady in the Midcontinent last week, but an easier tone was discernible in the local market, although no general declines materialized at the latter point. Demand continued rather slack. The tankwagon market was lower in Pennsylvania and Delaware, and unchanged at other points.

Firm domestic markets prevailed on kerosene, fuel and gas oils, and lubricating oils. Paraffin wax was steady, and the market for petroleum remained in firm position.

The U. S. Shipping Board was reported during the week to have awarded a contract for 1,000,000 barrels of fuel oil for the year beginning November 1, 1928, at 70c. a barrel for cargo and bunkers for tankers and 72½c. for bunkers for cargo vessels, the oil to be furnished at San Pedro, California.

The following is the American Petroleum Institute's summary for the month of August, 1928, of the increases and decreases in stocks at refineries covering approximately 88 percent of the operating capacity east of California:

	Barrels— Increase.	Decrease.
Domestic crude oil	.....	768,000
Foreign crude oil	.....	571,000
Gasoline	.....	926,000
Kerosene	.....	16,000
Gas and fuel oils	1,607,000	.....
Lubricants	39,000	.....
Miscellaneous	.....	162,000
Total	1,646,000	2,443,000
Deduct	.....	1,646,000
Net decrease	.....	797,000

Tankwagon Price Changes

Tankwagon prices were changed during the past week as follows:—

September 18.—Atlantic Refining Company reduced tankwagon and service station gasoline prices 1c. per gallon in Pennsylvania and Delaware.

Market Conditions

Gasoline and Naphtha.—Jobbing demand for gasoline had eased off, with buyers operating in hand-to-mouth volume to a large extent. The market continued held at 11¾c. per gallon, tankcar lots, at Bayonne refineries, with general shading noted. California gasoline, which had been quoted at a ¼c. premium hitherto, was also available at 11¾c. The market in the Midcontinent was still showing weakness, but no general decline in prices occurred. Trading in the export market was along routine lines, with prices lower on bulk stocks. Navy gasoline in bulk was ¼c. a gallon lower at 11¾c. at North Atlantic ports, with 61-63 naphtha ¼c. down at 12¾c., 64-66 naphtha showing a similar reduction to 13¼c. and 66-68 degrees ¼c. off at 16¼c. per gallon. The market at the Gulf was ⅛c. lower on navy at 11⅛c. per gallon and ⅜c. down on 64-66 naphtha at 11⅝c. per gallon.

Kerosene.—Tankwagon demand was reported showing seasonal expansion, the market remaining steady at 15c. per gallon. The jobbing market was likewise taking on more activity, and was firm at 8½c. per gallon for water white, in tankcar lots, f.o.b. local refineries. Reports from the Midcontinent noted an improved movement, with Midwestern jobbers buying in a large way. Export demand for kerosene was along routine lines. Water white in bulk was ¼c. lower at 8¾c. per gallon at North Atlantic ports. The market was ⅛c. lower at the Gulf, with sellers quoting prime white at 6¾c. and water white at 7¾c. per gallon.

Fuel and Gas Oils.—Diesel oil sales were reported showing some gains and the market was well maintained at $2.00 per barrel, bulk, f.o.b. New York and New Jersey refinery terminals. Fuel oil sales were running into larger totals, with the start of the consumption of heavy furnace oils. The market on bunker "C" quality was $1.05 per barrel, bulk, f.o.b. New York and New Jersey refinery terminals. Gas oil was firm and in good demand at 5¼c. per gallon, bulk, at Bayonne refineries. Industrial consumers were reported drawing larger stocks on contract.

Paraffin Wax.—Buyers were endeavoring to secure concessions when entering the spot market, but were finding holders unwilling to shade their listed quotations. As a result of the recent advance in Pennsylvania crude, refiners in that section have been showing stronger views on wax. Spot stocks of the higher melting points in fully refined were not large, and prices continued firm. There was a good export inquiry for the lower melting points in semi and fully-refined, and stocks were moving abroad in good volume at firm prices.

Petrolatum. — Domestic consuming manufacturers were coming into the market for supplies in good volume last week, and a strong undertone prevailed on spot. Both snow and lily white were reported moving out in a fair way at full prices, and cream and amber grades were also selling. Export buying had shown improvement, with the low grades principally in demand. As a result of higher production costs, resulting from recent advances in Eastern grades of crude petroleum, refiners were talking higher prices on petrolatum, but no actual advances developed during the week.

Medicinal Oil.—The situation was without important change for the week. Consuming manufacturers in the drug trade were in the market for the higher qualities of both domestic and Russian oils in moderate volume, and quotations were well maintained. The lower grades were also coming in for a fair call, industrial consumption of the cheaper selections having shown a little gain during recent months.

Lubricating Oils.—There was a good demand for cylinder stocks during the week, and the market was in steady to firm position. Unfiltered 600 s.r. was ½c. higher at 20c. to 21c. per gallon, with 650 s.r. up ½c. at 23c. to 23½c. per gallon. Quotations on other grades were unchanged. Pale and red oils came in for a moderate inquiry during the week, with quotations unchanged. Neutral oils were rather soft at Pennsylvania refinery points, but the market remained steady on other grades. The movement through the local market during the week of September 20 was as follows:

	Receipts. Barrels.	Exports. Gallons.
Friday	.....	74,800
Saturday	.....	209,900
Monday	.....	179,150
Tuesday	.....	33,550
Wednesday	.....	185,050
Thursday	.....	33,500
Totals	.....	715,950

Current Prices

(For late price changes, see page 2)

Gasoline and Naphtha

Gasoline, U.S. Motor, tankwagon	gal.	$0.18 @ —
Bayonne, tankcars	gal.	.11¾@ .12¼
Navy, 58-60, 437 e. p., N. Y.:		
export, bulk	gal.	.11¾@ —
cases	gal.	.2690@ —

Naphtha, 61-63 deg., export, bulk	gal.	.12¾@	—
64-66 deg., export, bulk	gal.	.13¼@	—
66-68 deg., export, bulk	gal.	.16¼@	—

Kerosene

Kerosene, tankwagon	gal.	.15 @	—
S.W., export, bulk	gal.	.07¾@	—
cases	gal.	.1740@	—
W. W. Bayonne, bulk	gal.	.08½@	—
export, bulk	gal.	.08¾@	—
cases	gal.	.1865@	—

Fuel* and Gas Oils

Gas oil, Bayonne, 32-36 deg., bulk	gal.	.05¼@	—
†Diesel oil, Bayonne, bulk	bbl.	2.00 @	—
Furnace oil, delivered, 400 gals. or more, bulk	gal.	.10 @	—
50 to 399 gals., bulk	gal.	.10½@	—
Fuel oil, bulk, f.o.b. N. Y. and N. J. refinery terminals—			
Monday	bbl.	1.05 @	—
Tuesday	bbl.	1.05 @	—
Wednesday	bbl.	1.05 @	—
Thursday	bbl.	1.05 @	—
Friday	bbl.	1.05 @	—
Saturday	bbl.	1.05 @	—

* Lighterage charge, 5c. per barrel.
† Lighterage charge, 6.5c. per barrel.

Lubricating Oil

(Car lots, in barrels)

Cylinder, filt., D 600	gal.	.32½@	.33
E 600	gal.	.26 @	.27
Unfiltered, 600 s. f.	gal.	.20 @	.21
650 s. f.	gal.	.23 @	.23½
600 flash, s. r.	gal.	.25½@	.26
630 flash, s. r.	gal.	.34½@	.35
Bright stock, light	gal.	.44 @	.45
Motor, 600, No. 6 color	gal.	.35½@	.36
500, No. 7 color	gal.	.33½@	.34
400, No. 6½ color	gal.	.31½@	.32
300, No. 6 color	gal.	.30½@	.31
200, No. 3¾ color	gal.	.24½@	.25
Pale, 100 vis., No. 2¼ color	gal.	.13 @	—
180 vis., No. 3¼ color	gal.	.20 @	.20½
250 vis., No. 3¾ color	gal.	.24 @	.24½
Red, 200 vis., No. 6 color	gal.	.16½@	.17
250 vis., No. 6 color	gal.	.17½@	.18
300 vis., No. 6¼ color	gal.	.18½@	.19

Paraffin Wax

Crude, white, scale—			
122@124 A.m.p., bags	lb.	.05¼@	.05⅝
124@126 A.m.p., bags	lb.	.05⅝@	.05½
yellow, scale, 124@126 A.m.p., bags	lb.	.05 @	.05⅛
Match, 105@108 A.m.p., bags	lb.	.05½@	.05⅝
111@115 A.m.p., bags	lb.	.05⅝@	.05⅞
†Fully refined, slabs, 118@120 A.m.p., bags	lb.	.05½@	.05⅝
123@125 A.m.p., bags	lb.	.05⅝@	.05¾
125@127 A.m.p., bags	lb.	.05¾@	.06
128@130 A.m.p., bags	lb.	.06⅛@	.06¼
130@132 A.m.p., bags	lb.	.06¾@	.06⅞
133@135 A.m.p., bags	lb.	.07⅛@	.07⅝
135@137 A.m.p., bags	lb.	.07¾@	—
Semi-refined, solid, bags, 122@124 A.m.p., bags	lb.	.05¾@	.05½

† For fully refined, in cases, add ¼c. per lb.

White Medicinal Oil

Domestic, 890@895 s. g.	gal.	1.00 @	1.05
875@880 s. g., drums	gal.	.75 @	.80
865@870 s. g., drums	gal.	.70 @	.75
Russian, 860@865 s. g., 80-85 vis., drums	gal.	.70 @	.75
870@875 s. g., 150-155 vis., drums	gal.	.75 @	.80
875@880 s. g., 180-185 vis., drums	gal.	.80 @	.85
885@890 s. g., 325-330 vis., drums	gal.	.85 @	.90

Petrolatum

(Car lots)

Cream, barrels	lb.	.06½@	.06¾
Amber, dark, barrels	lb.	.03½@	.03⅝
light, barrels	lb.	.03¾@	.04
Dark green, barrels	lb.	.02 @	.02¼
Lily white, barrels	lb.	.07½@	.08
Snow white, barrels	lb.	.08 @	.08¼
Veterinary, barrels	lb.	.03 @	.03⅛

Prices at Refineries

(Bulk, tankcar lots)

Gasoline and Naphtha

North Texas

48-50, 450 end point, naphtha	gal.	.00 @	.09¼
50-52, 450 end point, naphtha	gal.	.09 @	.09¼
56-58, 450 end point, naphtha	gal.	.09¼@	—
58-60, 437 end point, 140 l.b.p., (U. S. Motor)	gal.	.09¼@	.09¼
60-62, 450 end point, gasoline	gal.	.09⅝@	.09¾
64-66, 390 end point, gasoline	gal.	.10 @	.10⅛
64-66, 375 end point, gasoline	gal.	.10⅛@	.10¼
68-70, 360 end point, gasoline	gal.	.10⅜@	.11
68-70, 350 end point, gasoline	gal.	.10⅜@	.11
Grade A, 68-70, 375 e.p.	gal.	.08¾@	.09
Grade B, 76-82, 375 e.p.	gal.	.08½@	.08¾
Grade C, 86-88, 350 e.p.	gal.	.08¼@	.08½

Oklahoma

50-52, 450 end point	gal.	.09 @	.09¼
56-58, 450 end point	gal.	.09 @	.09¼
58-60, 450 end point	gal.	.09 @	.09¼
58-60 (U. S. Motor), 437 end point, l.b.p., 140	gal.	.09¼@	.09½
60-62, 400 end point	gal.	.09¾@	.09⅞
64-66, 390 end point	gal.	.10¼@	.10¾
64-66, 375 end point	gal.	.10¼@	.10⅜
68-70, 360 end point	gal.	.10⅜@	.11
68-70, 350 end point	gal.	.10⅜@	.11
Grade A, 72-78, under 375 end point	gal.	.08¼@	.08½

Oklahoma (Cont'd)

Grade AA, 80-87.9, 99% recovery	gal.	.08¾@	.09
Grade B, 76-82, 375 e.p.	gal.	.08½@	.08¾
Grade BB, 84-92, 85% recovery	gal.	.08½@	.08¾
Grade C, 80-88, 350 e.p.	gal.	.08¼@	.08¾

Pennsylvania

52 grav., naphtha	gal.	.11¼@	.11¾
54 grav., naphtha	gal.	.11½@	.11¾
56 grav., naphtha	gal.	.11½@	.11¾
58 grav., naphtha	gal.	.12 @	.12¼
60 grav., gasoline	gal.	.12½@	.12¾
62 grav., gasoline	gal.	.13 @	—

North Louisiana-South Arkansas

58-60, 450 end point	gal.	.09¾@	.10
58-60, 437 end point (U.S. Motor)	gal.	.10 @	.10¼
64-66, 375 end point	gal.	.10⅝@	.11

Gulf Coast (Export)

Navy, bulk	gal.	.10 @	—
60-62, 390 e.p.	gal.	.11¼@	—
64-66, 375 e.p.	gal.	.11⅝@	—

California

56-58, 375 end point	gal.	.09 @	.09½

Kerosene

Gulf Ports (Export)

Prime white, bulk	gal.	.06¾@	—
Water white, bulk	gal.	.07¾@	—

North Texas

41-43 water white	gal.	.06 @	.06⅛
42-44 water white	gal.	.06¾@	.07

Oklahoma

41-43 water white	gal.	.06¼@	.06⅜
42-44 water white	gal.	.06¾@	.07

Pennsylvania

45 water white	gal.	.08 @	—
46 water white	gal.	.08⅜@	.08½
47 water white	gal.	.08¾@	.09

North Louisiana-South Arkansas

41-43 water white kerosene	gal.	.06¼@	.07

Fuel and Gas Oils

Pennsylvania

30-34 fuel oil	gal.	.04¾@	.05
36-40 fuel oil	gal.	.04⅞@	.05

Oklahoma

14-16 fuel oil	bbl.	.55 @	.57½
18-22 fuel oil	bbl.	.57½@	.60
22-26 fuel oil	bbl.	.60 @	.62½
24-26 fuel oil	bbl.	.62½@	.65
26-30 fuel oil	bbl.	.70 @	.72½
28-30 fuel oil	bbl.	.80 @	.82½
32-36 gas oil	gal.	.02¾@	.02½
36-38 distillate	gal.	.02¾@	.03
35-37 distillate	gal.	.02¾@	.03
38-40 distillate	gal.	.03 @	.03¼

Kansas

24-26 fuel oil	bbl.	.70 @	.75
32-36 gas oil	gal.	.02¼@	.02⅝
38-40 distillate	gal.	.03⅛@	.03¼

North Texas

32-36 gas oil	gal.	.02¼@	.02⅜
24-26 fuel oil	bbl.	.60 @	.62½
26-30 fuel oil	bbl.	.60 @	.62½

Gulf Coast (South Texas)

Gas oil	gal.	.03¾@	.04
Fuel oil	bbl.	.90 @	1.00

Louisiana-Arkansas

32-36 gas oil	gal.	.02½@	.02¾
18-20 fuel oil	bbl.	.60 @	.65
16-20 fuel oil	bbl.	.60 @	.65
38-40 light straw	gal.	.03¼@	.03⅝

California

Fuel oil (at tidewater), bunkers	bbl.	.85 @	1.00
Diesel oil, 27 plus	bbl.	1.15 @	1.10

Lubricating Oils

Pennsylvania

150 vis., No. 3 color	gal.	.25 @	.26
180 vis., No. 3 color	gal.	.29 @	.29½
200 vis., No. 3 color	gal.	.31½@	.32
220 vis., No. 3 color	gal.	.35 @	.35½
600 fire steam ref. cyl. stock	gal.	.13½@	.14
625 fire steam ref. cyl. stock	gal.	.14¼@	.14¾
650 fire steam ref. cyl. stock	gal.	.15 @	.16½
600 E amber fil. cyl stock	gal.	.17 @	.17½
600 D cyl. stock	gal.	.23 @	.23½
600 cold test (bright filt)	gal.	.36½@	.37
600 cold test (dark filt)	gal.	.34½@	.35

Oklahoma

100 vis., No. 2 color	gal.	.05¼@	.06⅛
100 vis., No. 3 color	gal.	.05¼@	.06
150 vis., No. 3 color	gal.	.08¼@	.08½
150 vis., No. 4 color	gal.	.08 @	.08¼
180 vis., No. 3 color	gal.	.09⅜@	.10
185 vis., No. 4 color	gal.	.09¼@	.09⅝
180 vis., No. 5 color	gal.	.09¼@	.09⅝
200 vis., No. 3 color	gal.	.10⅜@	.11
200 vis., No. 4 color	gal.	.10¼@	.10⅝
200 vis., No. 5 color	gal.	.10¼@	.10½
220 vis., No. 3 color	gal.	.12 @	.12⅝
220 vis., No. 4 color	gal.	.11 @	.11¼
220 vis., No. 5 color	gal.	.10 @	.10⅜
240 vis., No. 3 color	gal.	.13⅜@	.14
240 vis., No. 4 color	gal.	.13½@	.13⅝
240 vis., No. 5 color	gal.	.13 @	.13¼
280 vis., No. 3 color	gal.	.15⅜@	.16
280 vis., No. 4 color	gal.	.15½@	.15⅝
280 vis., No. 5½ color	gal.	.14¼@	.14½

South Texas

100 vis., No. 2 color, unfilt.	gal.	.07 @	.07¾
200 vis., No. 3 color, unfilt.	gal.	.10¼@	.10⅝
500 vis., No. 3½ color, unfilt.	gal.	.13¼@	.13¾
200 vis., No. 5 to 6 color, red oil	gal.	.08½@	.08¾
300 vis., No. 5 to 6 color, red oil	gal.	.09¼@	.09¾
500 vis., No. 5 to 6 color, red oil	gal.	.10¾@	.11¼
750 vis., No. 5 to 6 color, red oil	gal.	.13½@	.14

California

130 vis., 2½ to 3 color	gal.	.09 @	.10
200 vis., 2½ to 3 color	gal.	.10 @	.10¼
300 vis., 3 to 3½ color	gal.	.10½@	.11
350 vis., 3½ to 4 color	gal.	.11 @	.12
400 vis., 3½ to 4 color	gal.	.13 @	.13½
200 vis., 4½ to 5 color	gal.	.08¾@	.09
300 vis., 5 to 6 color	gal.	.09 @	.09¼
400 vis., 5 to 6 color	gal.	.11 @	.11¼
500 vis., 4½ to 5 color	gal.	.11¼@	.12
500 vis., 6 to 6½ color	gal.	.11 @	.11¼
900 vis., 6¼ plus color	gal.	.12 @	.12⅛

Paraffin Waxes

(Bags, car lots)

Pennsylvania

122-124 white, crude, scale	lb.	.05 @	.05¼
124-126 white, crude, scale	lb.	.05¼@	.05½
126-128 white, crude, scale	lb.	.05½@	.05¾

Oklahoma

122-124 white, crude, scale	lb.	.04¾@	.05
124-126 white, crude, scale	lb.	.04¾@	.05

New Orleans Petroleum Market

NEW ORLEANS, Sept. 20, 1928.

Demand for 58-60 U. S. motor gasoline is good. Sales are fair. Prices in tan cars at refinery range from 10¼c. to 10½c. a gallon. Delivered to local dealers, freight, taxes and inspection included, the price is 13¾c. a gallon.

The market for 41-43 water-white kerosene is firm. Refineries offer this grade at 7¼c. to 7¾c. a gallon. The delivered price, including freight, taxes and inspection, is 10½c. a gallon.

There is a fair call for Bunker C fuel oil at 95c. a barrel alongside, delivered in the harbor.

Chicago Petroleum Market

CHICAGO, Sept. 20, 1928.

With a background of firm crude oil prices and the general belief in the trade that the leading oil distributing companies were preparing to maintain the provisions of the newly pared-down quantity discount agreements at all costs, the refinery gasoline market in this center the past week has seen little price change. Cross-currents have been at work under the surface, however, and from all indications there continues a test of strength between Oklahoma refiners on the one hand and another group of sellers, including numerous car-lot distributors, on the other.

Group 3 refiners' representatives continue to quote motor gasoline firm at 9¾c., and practically none of them are shading the price, even to meet competition. For the most part their stocks are low, and most of their current production is going into channels to serve jobber customers holding contracts, so that they are not particular about meeting spot market competition.

On the other hand, other sellers in this market are shading that price freely, presumably on material on a Group 3 basis, although much of the cheaper material is known to be originating in the refineries in north and west Texas, especially the latter. Sulphur gasoline is coming into the central states consuming territory in fair volume now, and reduced freight rates being applied to this movement may increase the movement.

Most jobbers report their current needs fairly well covered by contracts with refiners on the basis of shipment on date specified at the spot market price of that date. September gallonage is holding up fairly well, and common belief is that this month will show another reduction in gasoline stocks in the southwest.

High test gasolines have been easing off, although this movement at mid-week seemed to have come to a standstill, and there was a firmer stand. Export takings of this material have been smaller and domestic demand is still not actuated by cold weather considerations. Meanwhile, natural gasoline, after its recent rapid advances, had as sudden a decline from the peak, but at latest reports was rallying nicely and was again close to the price of motor gasoline. Demand for blending caused the fluctuations, it is declared.

Kerosene clearly is retreating from its peak and is now ruling about ¼c. below the top prices of two weeks ago. The demand is somewhat less insistent and it is in more plentiful supply, with more refiners able to take on spot business. Some believe kerosene is due for further easing, although few anticipate a wide-open break in prices of the product. It is claimed, however, that it is out of line with usual distillate price proportions.

The distillates are moving on a fair scale, although held back by the absence as yet of any really cool weather in the central states. General sentiment, however, seems to be that higher distillate prices can be anticipated.

Gas oil fails to make any headway from a price standpoint. It is in fair demand but is in plentiful supply, and there is enough offered at concessions to keep sellers from advancing quoted prices.

The same applies to fuel oil. Some firmness is discernible in the general price structure, but fuel fails to advance with any semblance of an underlying price trend. October industrial contracts to be placed immediately may bolster up the market. The trade is still waiting to see what will happen to the fuel price as result of reductions on west Texas oil rates.

Ruling prices were:—

GASOLINE (cents per gallon)—50-52, 450 (naphtha), 9¼c. to 9¼c.; 56-58, 450, 9¼c. to 9¼c.; 58-60, 437, 9¾c. to 9¾c.; 60-62, 400, 10c. to 10¼c.; 64-66, 390, 10½c. to 10⅝c.; 64-66, 375, 10⅜c. to 11c.; 68-70, 360, 11¼c. to 11¼c.

KEROSENE (cents per gallon)—41-43 water white, 6¼c. to 6⅜c.; 42-44 water white, 6⅜c. to 6¾c.

FURNACE OILS (cents per gallon)—38-40, straw distillate, 3¼c. to 3¼c.; 36-38, straw, 3c. to 3½c.; 32-34, straw, 2¾c. to 3c.; 32-36, light zero gas oil, 2½c. to 2¾c.; 32-36, dark, industrial gas oil, 2½c. to 2⅝c.

FCEL OILS (cents per barrel)—28-30, zero, 85c. to 90c.; 26-28, 70c. to 80c.; 24-26, 65c. to 67½c.; 18-22, zero or low sulphur, 60c. to 65c.; 18-22, high sulphur, 52½c. to 57½c.; Smackover, treated, 82½c.

Tulsa Petroleum Market

TULSA, Sept. 19, 1928.

The prevailing tone in the midcontinent refinery gasoline situation continues to point toward firmness because of increased buying by domestic jobbers and car-lot marketers for spot and deferred shipments.

Natural gasolines featured the market during the middle of the week, with an advance of approximately 1c. a gallon over the previous week's range, because of heavy buying for immediate shipment by refiners throughout the area, also heavy contract buying by two or three of the larger concerns for shipment over a period of thirty days.

U. S. motor material ruled steady at approximately the same levels as last week. The wide spread in quotations made by the smaller and larger refiners for immediate shipment in evidence last week still prevails, but there are possibly fewer refiners quoting the lower prices.

There were very little buying of either grade of kerosene in evidence, and prices eased off approximately ¼c. a gallon from the previous week's levels. However, in view of the fact that stocks held by refiners are not excessive, only a gradual decline in prices is expected to follow.

Distillates continue in good demand on call from Northern tankwagon distribuors, who are filling storage for the fall demand, with prices holding steady at last week's levels.

High cold test gas oils continue to move rather slowly at about the same levels that have existed over the past thirty to forty days. On the other hand, the low cold tests having a low flash are moving in good shape, with prices slightly firmer.

Fuels continue sluggish, with prices holding steady at about the same levels existing during the past few days. Buying of any quantity only make its appearance when distress material is thrown on the market.

Ruling prices in the Midcontinent, basis group 3 Oklahoma, are as follows:—

REFINERY GASOLINES.—The U. S. motor material ranges in price from 9¼c. to 9¾c. a gallon; 60-62—400 e. p., 9¾c. to 9¾c.; 64-66—390 e. p., 10¼c. to 10⅜c.; 64-66—375 e. p., 10¼c. to 10½c.; 68-70—360 e. p., 10⅜c. to 11c.

NATURAL GASOLINES.—Grades A and AA, 9¾c. to 9¾c. a gallon; Grades B and BB, 9½c. to 9⅝c.; grade C, 9¼c. to 9½c.

KEROSENES.—The 41-43 gravity, water white, doctor test material, 6¾c. to 6¼c. a gallon; 42-44 gravity, 6⅝c. to 6¾c.

DISTILLATES.—The 36-38 gravity, light straw color, 2¾c. to 3c.; unchanged from the previous week; 38-40 gravity, light straw color, zero cold test, 180 or lower flash, 3¼c. to 3⅜c., up an ¼c. from the previous week.

GAS OILS.—Ordinary 32-36 gravity, 30 to 40 cold test, 2¼c. to 2½c. a gallon; 32-36 gravity, light straw, zero cold test, 180 to 190 flash, 2⅝c. to 2¾c.

FUEL OILS.—The 18-22 gravity, Southwest Texas high sulphur content, 47½c. to 52½c. a barrel; 18-22, low sulphur, 55c.; 22-26, 57½c. to 60c.; 24-26, 62½c. to 65¼c.; 26-30, 67½c. to 70c.; 28-30, 80c. to 85c.; 30-32, 90c. to 95c.

LUBRICATING OIL AND WAXES.—Motor oils continue to move in good shape, with no change in prices. Bright stocks were advanced 1c. a gallon by all Midcontinent refiners late last week. Waxes continue in demand, with the market ⅝c. higher.

Yocum Leaves A. P. I.

Trell W. Yocum, director of the division of public relations of the American Petroleum Institute, has resigned to become the managing director of the Oil Heating Institute and the American Oil Burner Association. He will take up his new work October 1. Mr. Yocum had been a member of the A. P. I. staff since May 1, 1924.

Leonard M. Fanning, who has been assistant director of A. P. I. publicity work for the past year, will succeed Mr. Yocum as head of the public relations division.

Socony Golfers Win Standard Oil Trophy

The annual golf tournament between executives of the Standard Oil Company of New York and the Standard Oil Company of New Jersey, both this city, was held at the Nassau Country Club, Glen Cove, L. I., September 18. The Socony golfers won, 22 to 13, and came into permanent possession of a silver trophy which had been donated by the two companies.

Socony was represented by H. L. Pratt, F. S. Fales, W. F. Burt, A. F. Corwin, T. E. Bresnan, C. R. Auster, C. A. Ellis, W. H. Correa, R. A. McMurray, C. B. Kingsley, B. B. Jennings and C. J. Skidmore. The New Jersey company was represented by C. G. Black, E. J. Sadler, F. H. Bedford, jr., C. H. Haupt, A. Clarke Bedford, G. H. Michler, E. Van Leuven, C. L. Bowman, J. W. Casterton, G. W. Gordon, Richardson Pratt, and G. H. Tower.

The region east of the Santa Fe Springs pool, California, will be tested by the Continental Oil Company. Equipment for deep drilling has been moved in.

Objections by the Rocky Mountain Coal Men's Association have held up action by the Utah Board of Public Utilities on the application of the Ohio Oil Company for permission to run a natural gas pipeline into Ogden from Wyoming.

C. F. Kettering, director of the research laboratories of the General Motors Corporation, and W. B. Stout, of the Stout Metal Aircraft Corporation, will speak on the use of petroleum products in internal combustion engines at the meeting of the American Oil Men's Association in Detroit, October 9 to 11.

The Kentucky Independent Oil Company of Covington, Ky., has filed a complaint with the Interstate Commerce Commission seeking an award of $531.79 from the Louisville & Nashville Railroad as reparation on various shipments of gasoline from Kansas, Oklahoma, and Texas to Central Covington, Ky.

Only some $15,000 worth of property of the Mammoth Oil Company could be found by the United States marshal in the vicinity of Casper, Wyo., so that official reported September 15, after his first attempt to carry out the court order to collect about $3,000,000 due the government as taxes in connection with the Teapot Dome oil lease.

A bill has been prepared by the Roumanian government, designed to grant a charter for thirty years to a semi-private joint stock concern that will take over and operate existing petroleum pipelines and build a new line from Baicoi to Constantza. The government would furnish two-thirds of the capital and hold one-third of the directorate.

The Cities Service Company has completed plans for the construction of its ninth petroleum refinery, which will be built for the Empire Oil & Refining Company in eastern Iowa. The Empire company has purchased the Osborne Oil Company, Rockford, Ill., which has been doing a jobbing and retail business in northern Illinois and southern Wisconsin.

The recent reduction of fire insurance commission on oil tanks and refineries from 15 percent to 10 percent was made by insurance interests in an effort to hold the business of the eighty-five companies in the Oil Assurance Association, it was declared by H. M. Carmichael, Chicago, manager of the association, at a special conference held recently at West Baden, Ind.

The Department of Justice has filed a petition in the Nebraska Federal district court asking for a restraining order to prevent the Nebraska State Department of Agriculture from taking action against oil jobbers who may sell gasoline to the Federal government tax free. The State tax laws provide that all gasoline imported into the State shall be taxed 2 cents per gallon. The Nebraska attorney-general is preparing to fight the petition for tax-free gasoline for government purposes.

Gasoline and Kerosene: Tankwagon and Service Station Prices

New England Territory

	Cents per gallon—Gasoline—Tankwagon.	Gasoline—Service station.	Kerosene.
Augusta, Me.	21	23	15
Boston, Mass.	18	20	15
Bridgeport, Conn.	17	21	15
Burlington, Vt.	20	22	15
Hartford, Conn.	18	22	14
Manchester, N. H.	20	23	15
New Haven, Conn.	18	22	15
New London, Conn.	17	21	15
Portland, Me.	18	20	14
Providence, R. I.	18	22	15
Springfield, Mass.	18	20	15
Worcester, Mass.	18	20	15

Trunk Line Territory

Albany, N. Y.	18	20	15
Allentown, Pa.	17	22	14
Altoona, Pa.	17	22	15
Annapolis, Md.	21	24	14
Atlantic City, N. J.	19	21	14
Baltimore, Md.	21	24	12
Binghamton, N. Y.	18	21	15
Buffalo, N. Y.	18	20	14
Cumberland, Md.	21	24	14
Dover, Del.	17	22	15
Erie, Pa.	17	22	15
Harrisburg, Pa.	17	22	15
Newark, N. J.	19	21	14
New York, N. Y.	18	20	15
Philadelphia, Pa.	17	22	15
Pittsburgh, Pa.	17	22	15
Rochester, N. Y.	18	20	14
Scranton, Pa.	17	22	15
Syracuse, N. Y.	18	20	15
Trenton, N. J.	19	21	14
Utica, N. Y.	18	20	14
Warren, Pa.	17	22	15
Washington, D. C.	19	22	14
Wilkes-Barre, Pa.	17	22	15
Wilmington, Del.	17	22	15

Southeastern Territory

Atlanta, Ga.	22	24	14
Augusta, Ga.	22	25	16.5
Birmingham, Ala.	20	13	14.5
Charlotte, N. C.	21	24	14
Charleston, S. C.	21	24	14
Columbia, S. C.	21	24	14
Danville, Va.	22	25	14
Hickory, N. C.	21	24	14
Jacksonville, Fla.	20	23	11.5
Macon, Ga.	22	25	14.5
Miami, Fla.	23	26	14.5
Mobile, Ala.	19	22	14
Montgomery, Ala.	18	21	15.5
Mt. Airy, N. C.	21	24	14
Norfolk, Va.	21	24	14
Pensacola, Fla.	22	25	13
Petersburg, Va.	22	25	14
Richmond, Va.	22	25	14
Roanoke, Va.	22	25	14
Salisbury, N. C.	21	24	14
Savannah, Ga.	20	20	14.5
Tampa, Fla.	21	24	13

Southern Territory

	Cents per gallon—Gasoline—Tankwagon.	Gasoline—Service Station.	Kerosene.
Charleston, W. Va.	21	24	13
Chattanooga, Tenn.	20.5	23.5	15
Clarksdale, Miss.	20	23	12.5
Covington, Ky.	20	23	15.5
Gulfport, Miss.	21.5	24.5	14
Jackson, Miss.	20	23	13.5
Keyser, W. Va.	21	24	14
Knoxville, Tenn.	20.5	23.5	15
Lexington, Ky.	19	21	15.5
Louisville, Ky.	19	22	15
Memphis, Tenn.	17.5	17.5	14
Nashville, Tenn.	19	22	15
Natchez, Miss.	19.5	22.5	14
Parkersburg, W. Va.	18	21	14
Vicksburg, Miss.	19.5	22.5	14
Wheeling, W. Va.	21	24	14
Williamsburg, W. Va.	21	24	14

C. F. A. Territory

Chicago, Ill.	15	17	12
Cincinnati, Ohio	19	21	14.5
Cleveland, Ohio	19	21	14.5
Columbus, Ohio	19	21	14.5
Davenport, Iowa	18.5	20.5	12.3
Dayton, Ohio	19	21	13.5
Decatur, Ill.	15.2	17.2	12.1
Detroit, Mich.	18.8	20.8	13.7
East St. Louis, Ill.	14.1	16.35	11.2
Evansville, Ind.	18.4	20.4	13.4
Fort Wayne, Ind.	18.4	20.4	13.4
Grand Rapids, Mich.	18.7	20.7	13.6
Indianapolis, Ind.	18.2	20.2	12.2
Joliet, Ill.	15.4	17.4	12.5
La Crosse, Wis.	18.2	20.2	13
Madison, Wis.	17.3	19.3	12.1
Milwaukee, Wis.	17.1	19.1	11.9
Peoria, Ill.	15.2	17.2	12.1
Saginaw, Mich.	18.9	20.9	13.8
South Bend, Ind.	18.4	20.4	13.4
Toledo, Ohio	19	21	14.5

Intermountain Territory

Albuquerque, N. M.	22	25	17
Boise, Idaho	24.5	27.5	19
Butte, Mont.	23.5	26.5	19
Casper, Wyo.	19	22	13
Cheyenne, Wyo.	20	23	14.5
Denver, Colo.	19	22	14.5
Grand Junction, Colo.	22.5	25.5	18
Helena, Mont.	23.5	26.5	19
Pueblo, Colo.	19	22	14.5
Salt Lake City, Utah	22	25	17
Twin Falls, Idaho	24.5	27.5	19

Southwestern Territory

	Cents per gallon—Gasoline—Tankwagon.	Gasoline—Service station.	Kerosene.
Alexandria, La.	16	19	15
Baton Rouge, La.	16	18	13.5
Bartlesville, Okla.	16.5	18.5	10.5
Bristol, Tenn.	19	23	14
Dallas, Texas	17	21	11
El Dorado, Kan.	14.8	16.8	10.8
El Paso, Texas	18	21	17
Fort Smith, Ark.	18	20	13
Fort Worth, Texas	17	20	11
Houston, Texas	17	21	15
Joplin, Mo.	17.5	19.5	11.2
Kansas City, Mo.	17.9	19.9	10.6
Kansas City, Kan.	14.8	16.8	9.8
Lake Charles, La.	17.5	19.5	15
Little Rock, Ark.	23	24	13
Muskogee, Okla.	18	20	11
New Orleans, La.	17.5	19.5	15
Oklahoma City, Okla.	17	19	11
San Antonio, Texas	17	20	10
Springfield, Mo.	17.8	19.8	11.5
St. Joseph, Mo.	17.5	19.5	11.2
St. Louis, Mo.	16.6	18.9	11.3
Shreveport, La.	17.5	19.5	14
Texarkana, Ark.	18.5	22.5	13
Tulsa, Okla.	16	18	11
Wichita, Kan.	14.8	16.8	10.8

Pacific Coast Territory

Los Angeles, Cal.	17.5	20.5	13.5
Phoenix, Ariz.	23	27	20.5
Portland, Ore.	18.5	21.5	16.5
Pueblo, Colo.	18	18	15.5
Reno, Nev.	23	26	19
San Francisco, Cal.	18	21	15.5
Seattle, Wash.	17.5	20.5	16.5
Spokane, Wash.	21.5	24.5	20.5
Tacoma, Wash.	17.5	20.5	16.5

Western Trunk Line Territory

Des Moines, Iowa	18.5	20.5	12.3
Duluth, Minn.	18.5	20.5	12.9
Fargo, N. D.	19.9	21.9	14.9
Huron, S. D.	20.5	22.5	13.9
Keokuk, Iowa	18.5	20.5	12.3
McCook, Neb.	17.75	19.75	13.75
Minneapolis, Minn.	17	20.2	12.9
Norfolk, Neb.	16.75	18.75	12.75
North Platte, Neb.	17.75	19.75	13.50
Omaha, Neb.	16.25	18.25	12.25
St. Paul, Minn.	17	19	12.9
Scott's Bluff, Neb.	17.75	19.75	13.25
Sioux City, Iowa	18.1	20.1	11.9
Sioux Falls, S. D.	19	21	13.4

Explanatory Notes

Tankwagon and service station prices of gasoline quoted above include State taxes of 5c. per gallon in South Carolina, New Mexico, Arkansas, Florida, Virginia and Kentucky; 4c. per gallon in Arizona, Alabama, Georgia, Idaho, Maine, New Hampshire, North Carolina, West Virginia, Nevada, South Dakota, Maryland, Mississippi; 3½c. per gallon in Utah; 3c. per gallon in Tennessee, Delaware, Texas, Colorado, Michigan, Indiana, California, Iowa, Ohio, Vermont, Montana, Wyoming, Oklahoma, Pennsylvania and Oregon; 2c. per gallon in Connecticut, Wisconsin, Nebraska, Louisiana, Rhode Island, New Jersey, Washington, Minnesota, North Dakota, District of Columbia, Missouri and Kansas.

Gulfport, Miss., prices include Harrison county privilege tax of 2c. per gallon in addition to the State tax.

Georgia prices include 1c. a gallon tax on kerosene; Alabama, ½c. on kerosene; Florida, 0.125c. on both gasoline and kerosene; Kansas City, St. Louis, St. Joseph and Springfield, Mo., prices on gasoline include a ½c. local tax; Montgomery, Ala., and Pensacola, Fla., prices include local taxes of 1c. on gasoline.

In Standard Oil of Indiana territory tankwagon prices for kerosene subject to 1c. discount on dumps of 50 gallons or more.

Outside the Chicago district the following quantity discount schedule is in effect on monthly tankwagon deliveries of gasoline:—6,000 gallons or more, 1½c.; 10,000 gallons or more, 2c.; 15,000 gallons or more, 3c.

Within the Chicago district the following quantity discount schedule is in effect on tankwagon deliveries of gasoline:—750 to 2,000 gallons, ½c.; 2,000 to 3,000 gallons, ¾c.; 3,000 to 6,000 gallons, 1c.; 6,000 to 10,000 gallons, 1½c.; 10,000 to 15,000 gallons, 2c.; 15,000 gallons or more, 3c.

If the quantity bought during the year is equal to or exceeds 12 times the agreed monthly quantity, the discount is paid or credited on the entire quantity at the close of the term, less the monthly payments made during the year.

In Oklahoma the Magnolia Petroleum Company and other marketers have established the following schedule of discounts:—Over 750 gallons a month, ¼c. per gallon; over 2,000 gallons, ¾c.; ovr 3,000 gallons, 1c.; over 4,500 gallons, 1¼c.; over 6,000 gallons, 1½c.; over 8,000 gallons, 1¾c.; over 10,000 gallons, 2c. If the quantity bought during the year is 12 times the monthly agreed purchases, the discount will be paid or credited for the year, less any monthly purchases. The schedule for service station deliveries is as follows:—Over 200 gallons a month, 1c. per gallon; over 300 gallons, 1¼c.; over 400 gallons, 1½c.; over 500 gallons, 1¾c.; over 600 gallons, 2c. The same rule holds good for annual purchases as in the tankwagon discounts.

National Petroleum Association Meeting

(Continued from page 17)

makes me feel certain that its best years are still to come.

Three Trustees Added

Mr. Lyons called attention of members to the need from time to time of revising the constitution and bylaws to take care of new needs. He called on Fayette B. Dow, general counsel, to explain the two amendments considered desirable by the board of trustees.

Mr. Dow outlined the project for increasing the number of trustees from twelve to fifteen, because of the increased work of the board, which now meets once a month as against two or three times a year formerly. Upon motion this amendment was adopted.

Mr. Dow also outlined an amendment which would call for resignations of members ninety days before the annual meeting and which would require members resigning during the year to pay their dues up to the end of the association's fiscal year. He explained that this had been the unwritten law of the association for some years and held that it was desirable to incorporate it in the constitution so that the association might be assured of the income estimated at the beginning of the year when the budget is got together. This amendment also was adopted without dissent. Committees were appointed by Mr. Lyons as follows:—

Nominating:—John P. Flynn, Harry R. Lewis, James Lewis.
Auditing:—L. C. Jamieson, A. B. Weingard, T. M. Murphy.
Resolutions:—O. P. Keeney, N. H. Weber, Charles McLean.

The report of G. B. Hunter, treasurer, showed expenditures of about $38,000 and receipts of approximately the same sum. A slight deficit was more than made up by some unlooked for receipts in the Washington office.

Regrets from Chamberlin

Mr. Lyons read a letter from Judge C. D. Chamberlin, for many years general counsel for the association and now advisory counsel, expressing his regret that his health did not permit his presence at the meeting. The letter told of Judge Chamberlin's attachment for and interest in the association and said that he looked back with substantial pleasure on his work for the organization.

The resolutions committee was instructed by the chair to wire a message of good cheer to Judge Chamberlin.

A 116-page booklet giving reports of the trustees in charge of the various departments was distributed to members. The names of these departments and the trustees follow:—

Economics, Accounting and Statistics:—T. J. Hilliard.
Legislation and Litigation:—Sheldon Clark.
Membership and Relations:—O. P. Keeney.
Standards and Tests:—A. W. Scott.
Trade and Commerce:—H. A. Logan.
Traffic and Transportation:—Frank B. Fretter.
Welfare and Insurance:—R. A. Wotowitch.
Manufacture:—P. S. Tarbox.

Department of Manufacture

The annual report of P. S. Tarbox, Independent Refining Company, Oil City, Pa., trustee in charge of the association's Department of Manufacture, follows:—

The trustee in charge of the Department of Manufacture has been requested to give a brief resume of this department since September, 1924. Considering the multitude of attempts and accomplishments, it would be burdensome were we to attempt to do more than hit a few of the high spots. Suffice it to mention that at a meeting held in Washington, October 24, 1924, it was decided to make this department a real live force by "issuing intelligent bibliography of books and articles on refining and new processes, with comments and requests for comments," assigning men to visit government experimental stations and make reports, and "drawing up programs of department activities, having a refining engineer sit in and make suggestions."

This was followed by a well attended meeting at Bradford, November 22, 1924, at which the following appointments were made:—Co-operation with the technical societies and American Chemical Society, B. B. Stroud; American Society of Mechanical Engineers, Mr. Melhop; Society of Automotive Engineers, Mr. Zehrung. It was determined to arrange contacts with universities.

In accordance with the October 24 meeting recommendations H. S. Bell was called in, and were you to read today, four years after, his suggestions at that time, all would agree that he was not only a capable adviser but a real prophet. It was he who suggested group or district meetings, emphasizing departmental results at the semi-annual meetings; formulated upon the results of group meetings, refinery visits, etc., and gave us an outline where and how we could obtain such needed information along many lines.

Districts Established

At this meeting four districts were established and district chairmen appointed. These districts were Bradford, Warren, Oil City and Pittsburgh. This department has since established other districts.

The first refinery visit was at Pennzoil plants No. 1 and No. 2, and the Independent Refining Company plant, December 17, 1924, which 13 refineries represented by 30 men attended. You are also familiar with the larger firms, such as the Tidewater, Crew-Levick and Pure Oil Company, which have since so kindly opened to our inspection their modern plants, and to attempt to tell the benefits accruing to each company which has been represented at these refinery visits would be impossible.

The district meetings for the winter of 1924-25 were started with a vim. They were well attended, discussions on various topics were opened, and diversified views were freely exchanged.

I think each one of us sometimes questions the accuracy of his memory, but it would seem in general they should carry us back quite accurately to a period less than four years; if so, are we willing to reminisce just long enough to make a mental picture of the refineries in the Pennsylvania field as of October, 1924, and then again picture them as they are today?

After this reflection how many will say that the Department of Manufacture of the National Petroleum Association has had no part in this change? True, the National Petroleum Association could not and never intended to do more than aid, or should I say arouse an intelligent desire or more appropriately, just act as a sign-board.

Be that as it may, can we say that the free-will offering of group chairmen and their workers, trustees and officers of this association has not borne fruit a hundredfold. True, that much that was outlined at the first meeting has not been accomplished or seriously attempted, but let us remember that this has not been a life time, but less than four years ago.

Possibilities of Co-operation

As proof of the wisdom of the original outline may I mention that one of our newer trustees who was not familiar with the outline of the two earlier or original meetings has but recently very kindly and very clearly outlined to the trustees in charge of this division the possible advantages and the great support that is ours for the asking, by greater co-operation with the departments of our government who stand ready and anxious to assist us in so many ways, which the small refiner especially needs in that he would not be justified in assuming the necessary expenses to individually carry on this work. Also Dr. Reese has several times explained to us that Penn State with his force is at our command, when we the residents of Pennsylvania aid in producing the proper facilities for such assistance, and then we should not overlook the earnest desire of other institutions of learning in Pennsylvania, Ohio, Michigan and Oklahoma, from whom so far we have derived but little direct benefits.

We have only touched the hem of the garment of possibilities of aid and improvement open to all who will actively co-operate. In this work he who gives most receives most.

Your trustee of this department sees possibilities of benefits so great from the manufacturing standpoint that he realizes full well that no one man who has to spend a portion of his time in earning his daily bread can carry this work on with proper efficiency and speed.

He fully believes we can best reach all interested members through the group or district chairmen, and sincerely hopes that his successor in this trust will find men willing to assist and carry to successful conclusions all the suggestions of the Bradford meeting in 1924.

Appointment of Engineer

It certainly would be improper to omit mention of the major activities of this department during the past three years. At the Atlantic City meeting in September, 1925, it was felt that this work should be expanded by employing a consulting engineer, but it was later felt this program was a little too large for the association to assume at that time but did result in, as you know, in employing a "Heat Efficiency," or "Heat Conservation Engineer."

During 1925 twelve refiners joined in this endeavor, and in 1926-7 fifteen refiners used this service. The following figures which will be given you very briefly, you should remember, are figures and data compiled by Mr. Ross from information given him by refiners from their own individual records.

Savings in Coal

This will show that the twelve refiners in 1925 used 196.5 pounds of coal per barrel of crude run, and the fifteen refiners during 1926 used 146.5 pounds of coal per barrel of crude run, and in 1927, 137 pounds of coal per barrel of crude run, and for the first eight months of 1928, 129.5 pounds of coal.

The total reduction per barrel of crude run has been 67 pounds of coal since 1925, or a saving of approximately 35 percent. To reduce this to dollars in saving based on barrels of crude run, it amounts to $433,564. This is no mention of great savings due to expert advice in a multitude of ways which has been rendered by Mr. Ross.

You who have not availed yourselves of this service know best whether you have acted wise or otherwise. One man can at the outside handle but fifteen refineries, and the eight hours is but a nice beginning of his day's work.

It seems to your trustee that all must agree that the most simple investment we have made has returned to us so great dividends and is but another proof of the possibilities of still greater returns by the continued co-operation of all of our members in this particular division of the N. P. A. activities.

Efficient Combustion

A paper by H. A. Ross, combustion engineer for the National Petroleum Association on "The Refinery Heat Machine, Old and New," follows in part:—

Oil refining is a multiplicity of problems in "Heat Manipulation" and practically every paper pertaining to manufacture that will be presented at this convention or that you ever have read or heard elsewhere will be found rooted and grounded in some phase of temperature effect which in the last analysis is heat.

Formerly fuel regardless of its character could be purchased for a song and any refiner could afford to waste it as he pleased. Today an entirely different situation exists and it is now of utmost importance that we forget the old shop-worn "Faith of the Fathers" that winked at the indiscriminate waste of material and labor because it was cheap and easily obtained.

May I digress here a moment to illustrate how cheap that most valuable fuel, natural gas, was by quoting George P. Brockway, president of the Seneca Oil Works, Warren, Pa.? Mr. Brockway said that some years ago his company purchased natural gas at a fixed rate of six cents per barrel of crude that they ran. During those early days they used from thirty-five hundred to four thousand barrels per month. One month they did not run any crude whatever, but were very busy rerunning and filtering accumulated stocks. Nevertheless, inasmuch as they did not run any crude they were not required to pay for the fuel they burned.

Such fuel as natural gas requires a minimum of excess air to support combustion, so that the resulting volume of hot gases produced by its combustion is probably only twenty or twenty-five percent of those that would be produced from an equivalent quantity of coal. The early design of the gas fired furnace was a very simple one that afforded but little space for combustion. Evidently no one knew a single fact about the radiant effect of a luminous substance or a flame, and the convective and velocity effect of its hot gases insofar as they pertained to the transfer of heat. Thus in almost every instance furnace heights of eighteen inches, or at the most not to exceed twenty-four inches, were usually provided. Even today there are a number of such boilers and stills in operation.

As a direct result of the universal waste of natural gas, not only in the industries but the household as well, the unlimited supply of this fuel was curtailed and its cost for manufacturing purposes has become prohibitive in all but a few isolated localities, or for special processes.

Oil as Refining Fuel

Faced with the necessity to substitute other fuels for gas, the refiner turned to oil and burned such fractions as were not readily salable. This procedure did not occasion any particular hardship, either, so far as cost was concerned. Furthermore, it was still possible to burn the oil after a fashion in the same old gas fired furnaces, because it likewise required a minimum of air for combustion.

The fuel situation has again changed in the eastern field, so that now the refiner finds such a demand and a price for his low grade fuel oils that he can no longer afford to burn them, but must have recourse to coal as the source of his heat requirements. In many instances when the refiner turned to coal as a cheaper fuel, the only change that was made in the gas fired furnace was to install a set of grate bars to hold the coal. Right here is probably where a heavy fuel loss occurs, for if we will use a little thought we must know that in order to obtain a suitable combustive condition which will produce a maximum of heat, different methods of air admixture are necessary for the various fuels used, and modified furnace design is essential.

Now the thing of vital importance in any heat analysis is the one big problem of cost. It costs money to generate heat! It costs money to conserve heat! It costs money to utilize heat! It costs money to reclaim heat!

If we invest a dollar to improve any of these conditions, the improvement we made must return the dollar we spend within a reasonable time, in order to avoid investment loss.

As an illustration, if Refinery A consumes one hundred pounds of coal at a cost of $4 per ton laid down, to fractionate and finish a barrel of crude, the fuel cost will be 20 cents, based on the crude run. We will say that Refinery B only uses fifty pounds of coal to process this same crude. Then the fuel cost in Refinery A is 10 cents more per barrel than in B. Refinery B, however, has new boiler and still equipment and we would naturally expect more efficient results from this modern plant than we would from the older one. We therefore assume that the modern equipment affords a distinct manufacturing advantage. Such a surmise might be incorrect, for we frequently find that regardless of the old equipment handicap, a refinery is able in some way or other to hold a place in the competition for

business and make a profit, and we wonder why. The following may afford a reasonable and logical answer.

The cost of fuel is not the cost of heat, any more than the cost of crude is the cost of finished product. To either of these basic materials must be added the cost of process, represented by labor, replacement, depreciation, obsolescence, interest, etc.

We actually process fuel to manufacture heat, now what about the quality of the heat? For instance:—To say that it costs forty cents to produce one thousand pounds of steam. If we were asked what kind or quality of steam, we might say saturated or superheated as the case might be, and yet not answer the question. What we must know is how many calories or B.t.u. the steam contains. Dependent upon the pressure and superheat, this one thousand pounds of steam may contain one million and a quarter, or it could hold one million and a half or more heat units. The cost then of a given quantity of steam, as such, can mean but little, for it is nothing but a vapor that carries or transfers heat.

You will recall a statement made in the opening paragraphs that heat can only flow by the aid of some "media" such as vapor, gas, liquid, etc. The quantity of heat which any of these elements can absorb and contain will be dependent upon their physical characteristics, boiling points and specific heats. If we carry the illustration a little further we could say that one thousand pounds of a given oil or gas can carry one hundred thousand or five hundred thousand B.t.u.

We know that a certain number of B.t.u. are required for the primary dry distillation of a barrel of given crude to a given bottom. We also know just as certainly how much heat is required to produce the different fractions. Regardless of the mechanical condition of any refineries' heat machines, and whether they are efficient or not, every barrel of finished oil represents the expenditure of a definite number of heat units, no more and no less. Ten times the necessary amount may have been produced and lost elsewhere, but the heat units supplied to that barrel of finished oil cost a certain amount of money per thousand or million to produce them, as you choose to consider.

Conservation

Here then are the two central thoughts of the "Refinery Heat Machine" problem. First, the cost to produce the heat unit and then the cost to conserve and utilize it, which we will now consider.

It was stated that fuel cost in Refinery A was 10 cents more per barrel than Refinery B. It does not follow, however, that the units of heat produced cost more just because the fuel cost was greater. A volume pertaining to such facts might well be written, but in this presentation we can only consider a few of the more important ones.

Admitting that A's equipment is old, did you ever stop to consider that his investment in heat machines has been either directly or automatically charged off years ago and that now, only the expense of a few simple repairs exists in order to continue the useful life of the machine? Assume that the investment has not yet paid out, have you given thought to the fact thatt his original investment in heat equipment did not cost one half of what it would to replace it today? Possibly this refiner has withatood the solicitations of high pressure salesmanship that endeavored to saddle him with heavy investment in equipment that was already obsolete or nearly so—we have records of such bases aplenty. Possibly he has judiciously made a few small investments in order to conserve the heat he has inefficiently produced. Another factor of greatest importance is that perhaps he has employed superintendents, foremen and other assistants who really do know their business in every particular and who maintain records of daily operations, so that they may at all times have available comparative information of their economic figures for accounting purposes.

We have hundreds of cylindrical stills that are producing premium lubricants by the batch or continuous method. Some of these stills are set over modern stoker-fired furnaces and are equipped with vapor heat exchangers. The rate of heat transfer in this type of still has also been greatly improved by mechanically increasing the circulation of the oil. The net result of these improvements has increased the over-all heat efficiency of the units 100 percent and more, and in this accomplishment heavy investment has been avoided.

The modern heat machine in Refinery B may be a most efficient apparatus from a mechanical standpoint and yet it may not produce cheap units of heat.

Take, for example, a boiler plant. Do you know that you can spend $75 per boiler horse power for a new plant, or you can spend $150 and more for the same purpose and yet the low cost plant will produce the same heat units just as efficiently with the same fuel as must be burned in the higher cost plant? Furthermore, the expense for skilled attendants, maintenance and repairs is usually found to be proportionally higher in the ultramodern plant.

Perhaps Refinery B also has a tubular oil heater and fractionating column, or modification of the same, wherewith to process the crude. This fundamentally is also a heat machine and the same arguments submitted in relation to the boiler plant are equally applicable here. Probably such a process of fractionation will not use 30 percent of the steam nor 50 percent of the fuel required to operate the cylindrical still. We must also admit that better yields and improved quality, especially of the lubricating fractions, are afforded in many cases.

The modern tubular heater requires that the flow of heat to the tubes, and the velocity of oil flow within them must always be in phase with each other for given products, therefore to keep these values constant it is necessary to burn oil, gas or pulverized fuel. Gas is expensive. Oil is also expensive, and in addition usually requires steam for atomization. It costs money for power and equipment to pulverize fuel. It may be true that an offset against the cost of such fuels we avoid the added expense of labor to burn coal, but can we balance the heat cost in this manner?

Fractionating Equipment

Now for the final thought in this connection. Modern fractionating equipment requires a heavy investment of money, and the question is, how soon must this money be returned? Dependent upon the answer will be found the cost of the heat units produced and utilized. But who can answer such a question at the present time or who knows whether it will be one or ten years before the machine is superseded by a better one?

Do you think that we have reached the limit of attainment in this respect? We have thought so a number of times in the past and more than once seen our fond ideas scrapped for better ones within a year or two. In order to achieve more economy we must progress farther than we have today and you may rest assured that what we now have will also become obsolete, just how soon we cannot predict.

Surely you must know that coal is the most valuable basic raw material we have today. You also know that synthetic oils and motor gases are being commercially produced from such material. Permit me then to present you a brief mental picture of what the future refinery might possibly be.

Refinery of the Future

This refinery may hydrogenate the raw coal and combine the product with its crude oil. The non-condensible gases and coal residue may then be used to produce cheap steam and hot gases for fractionating and processing purposes, and in all probability the entire process from first to last will be done continuously in the one heat machine. How about heat economy with such an apparatus as this?

I would not have you understand that saving fuel alone is the remedy that will afford profit by reduction of your manufacturing costs, although it may represent from 20 to 30 percent of the total amount. What I will say, however, is that reducing your cost to produce heat from the raw fuel and then utilizing it properly will assist to a remedy.

No criticism of the modern heat machine, whether boilers, stills, or other heat apparatus, have been attempted in this discussion, either with the intent or purpose of disparagement, for these machines are now apparently affording remarkable economies.

An important matter which we must not lose sight of, however, is the fact that there have been just as many costly mistakes made, with resultant loss, in the development of the modern tubular boiler or oil heater as there was in the pioneer days with the old equipment. Do not forget either that the cost of the early error was an insignificant one compared to some of those that are made today.

Assuredly the time has not yet occurred when we are forced to scrap all of our old heat machines for new ones. Pending such a critical situation as that, wouldn't you consider it advisable and also profitable to continue your efforts to still further improve the present heat efficiencies of your old machines by a modest expenditure of money?

Suggestions

In conclusion, I desire to offer a few suggestions relative to the "Heat Machine" that may be of assistance in your choice of the "old or the new."

The first suggestion is in the form of a few questions. What do you now pay—and what can you afford to pay—for a million heat units wherewith to refine your oil or produce your steam? Do they now cost you 40 cents or 60 cents per million? How many do you produce per barrel of crude or the equivalent you run, and what percentage of those produced do you utilize? Remember, please, we are not asking for the cost of fuel; we want the cost of heat. If proper records have not been maintained, it will be a difficult matter to answer the questions correctly or intelligently, and yet the profitable conduct of your plant is largely dependent upon this information.

You are members of the National Petroleum Association and employ skilled men for the specific purpose of protecting your mutual interests and affording you certain information when you need it. In addition to this, many of you are voluntarily contributing services and money to improve the general industrial condition of the individual as well as the organization.

One of the most active committees of your association is the Department of Manufacture. Has it ever occurred to you that this committee might be able to assist you in the solution of some of your heat problems? Under their supervision, a three-year study of refinery heat machines has been conducted in a number of plants, and you will find a summary of this work in the current annual report.

This committee now has on file in the engineer's office hundreds of confidential records pertaining to the heat problems and collateral research of not only the small refinery, but the large one as well. In addition to this, related data developed by research committees of several technical societies are regularly received and filed. This is available to you through your manufacturing committee also.

If you want to avoid costly mistakes in heat production and utilization, perhaps your committee can help you. If you want to know what percentage of your heat dollar is now wasted, how much of it you can save and what it will cost you to do so, your committee might assist you. If you want to purchase the new heat machine or remodel an old one, they have information which you need. If you want to reduce your cost of heat manufacture thousands of dollars a year, they can tell you how. They have done all of these things for others, they have the records and the proof.

Pipe Stills

A paper on "Pipe Stills," by G. D. Brandt, Henry L. Doherty & Co., follows in part:—

The development of refinery equipment in the past ten years has been almost as rapid and varied as the equipment of an all-electric radio set, and the various hook-ups are almost as complicated. We no sooner get an installation made until we begin to change this or that to improve the operation or efficiency. Although our present equipment is fairly efficient, the refiner must realize that he must continually keep modifying his equipment to operate on the ever-changing crude supply and supply products to specifications which are becoming more exacting every day.

In so much as the distilling equipment is the heart of a refinery, it has been the target of much research and development. This apparatus has passed through many stages, from the old cheese-box and cylinder stills operating batch with no towers, then connected together for continuous operation, then the addition of towers and later with pipe still preheaters. Much could be said about this type of apparatus, but I believe the industry as a whole has accepted the pipe still heater and tower fractionator as the last word in distilling equipment. The arrangement and number of such pipe stills and towers for complete distillation is a problem which will have to be solved by the engineers for each individual case. At the present time there is no complete distilling unit that can be universally adapted.

The fractionating towers used today are similar to those used in alcohol and benzol fractionation, and much of the tower design had already been worked out. The refinery engineer merely had to modify the designs to his needs.

Pipe Still Heaters

This was not true of the pipe still heater, and this part of the unit had to be designed and built from very meager data. These heaters were originally constructed with ordinary lapweld pipe set in a brick box. The tube bundle was set directly over the combustion chamber, which was usually too small for the quantity of fuel burned. The result was burned-out tubes from flame impingement, overheating and oxidation. Dutch ovens were then added to these heaters, which reduced the tube failures, but they were still unsatisfactory. During this period the use and control of radiant heat absorption was not known and the designer was always trying to get his tubes farther away from the combustion chamber, as all of the tube failure was laid to flame impingement and small combustion space. To overcome this, the tube bundle was placed alongside the fire-box and the flue gases passed downward over them. This also allowed the operator to pass the oil upward through the tubes, counter current to the flue gases, and increase the efficiency of the heater. This heater worked fairly satisfactorily so long as the fire-box temperature was kept low by the use of excess air. The efficiency of these heaters were low and the oxidation of the top tubes rapid and tube failures frequent. It was very apparent in these heaters that the arch and back wall of the heater reflected considerable heat to the top tubes, and in order to reduce this, tubes were installed directly above the tube bundle and up the back wall to absorb this heat reflected from the fire-box. The hot flue gases from the fire-box then entered a space that was surrounded on three sides by tubes, and little or no tube trouble was experienced if the fire-box temperature was held below 1,800° F. The efficiency of these heaters was still low, and when used with a high oil inlet temperature ran about 40 percent.

Up to this time we were not concerned very much about the efficiency, as this was better than that of the old cylindrical still, and we felt the b.t.u. transfer rate was high, as indicated by the number of tube failures.

However, now having a unit which operated satisfactorily from a mechanical and maintenance standpoint, we made a complete engineering survey, checking the B.t.u. transfer for each row of tubes. To our surprise we found the transfer rate very low for the tubes in the bundle, and particularly so in the bottom rows; while the tubes in the roof and up the back wall above the bundle were doing more work than the tubes of the bundle, with the exception of the top row. About this time considerable work was being done on the absorption of radiant heat in connection with steam generation for power plants, which checked the results of our findings.

We then re-designed our heaters to take advantage of all the data obtained by the engineering survey. In this design we extended the roof tubes over the entire roof and up the back wall above the tube bundles, and insomuch as these heaters were to work on cracking equipment having an inlet oil temperature of 750° F. we used air pre-heaters to pre-heat the air for combustion and recirculated the flue gases back into the firebox to reduce the firebox temperature and increase the gas velocity and temperature difference over the tube bundle. With these additions we were able to reduce the excess air to a minimum and equalize the work done over the entire heating surface, which materially increased the capacity per square foot heating surface over previous designs.

These heaters operate with a firebox temperature of 1,400° F. and a stack temperature of 375° F. with an oil inlet temperature of 750°. The flue gas analysis will compare with that of good boiler practice, and the thermal efficiency under test conditions is about 80 percent.

Later developments of this heater have been to again increase the radiant absorption surface by using a thin diaphragm to separate the tube bundle from the combustion chamber, or installing a baffle behind the first row next to the combustion chamber. Other modifications are to lengthen the flame travel before adding the recirculation gases and rearrangement of ducts and hot fans.

Other Successful Types

Thus far I have confined my remarks to our own developments and experiences, but at the present time there are several successful and efficient heaters available to the industry. These heaters have been classified as open radiant, shielded radiant and recirculation. From my observation, either the open radiant or shielded radiant types are very satisfactory when used where the oil inlet temperature is low, or where only a moderate air pre-heat is used. The recirculation heaters are used where high inlet oil temperatures are encountered, and usually in conjunction with air pre-heaters. In these heaters, firebox control is dependent entirely on the amount of flue gas recirculated, and fans and ducts for handling these gases are extremely large and could be reduced to less than half the size by the addition of radiant absorption tubes in the heater.

The present bubble cap tower, or any fractionating tower for that matter, is very inefficient from a heat standpoint. Thermally, it is a piece of apparatus which takes heat in at a high temperature and delivers it back to you at a lower temperature and the longer range of products you produce from a single tower the greater the reduction in temperature between the inlet and outlet of the tower. As an illustration, let us take a single tower, pipe still unit running on crude to a low percentage bottom and taking off gasoline at the top, and kerosene, gas oil, and wax distillates off the side, through striping sections. The tower will receive the total crude from the pipe still at a temperature between 700° and 800° and deliver gasoline vapors at the top at approximately 325° F. The side streams will be withdrawn below their boiling points, due to steam striping, and we will be required to pump back into the tower sufficient gasoline as reflux, to absorb all the heat of vaporization of all products other than the gasoline and all the sensible heat between the inlet temperature and the temperature at which all products leave the tower. Thus, we have an enormous quantity of heat at 325°, which is far in excess of what the crude can absorb in the vapor interchangers. The interchangers on the side streams and bottom can recover some heat, but as a whole the crude seldom reaches 400° F., with very little vaporization, due to the high pressure on the interchangers.

Interchange Tower

To overcome this disadvantage we have developed what we term an "interchange tower." This tower differs from the straight bubble cap tower in that the crude is passed through interchangers between each bubble tray with a fixed temperature differential between the crude and vapors ascending up the tower. Interposed between the vapor interchangers, the crude is passed through the liquid product interchangers, which assist in maintaining the proper thermal gradient. The crude is carried through the interchangers at substantially the same pressure as that in the tower and at a pressure below that of the liquid interchangers. This has a marked advantage over the usual system, as no products are thrown off test by contamination, but any leakage is merely added to the crude and is re-processed. The theory on which the tower operates is entirely different from the straight bubble cap towers and is operated on fixed temperature gradients between the trays. Although the reflux flows downward through the tower from tray to tray, it increases in quantity as it proceeds down the tower unless taken out by the proportional reflux boxes. The sides streams are taken out and handled similar to other towers, except the kerosene is made as an overhead distilled product. The crude leaving the last interchange has been heated by recovered heat to 500° to 550° F., and approximately 45 percent of the crude has been vaporized. At this point the vapor is separated from the liquid, and the liquid is pumped through the heater and into the separator, where the vapors and liquid are separated, and the vapors passed to the base of the tower along with those previously removed from the crude. The bottoms, as well as the side cut products, are pumped up through their individual circuits, and are cooled by the incoming crude. All products, with exception of the kerosene, are cooled to an average temperature of 125° F. without the aid of water cooling. The only water coolers used are those on the kerosene and the final gasoline coolers. Both are thermial and fractionating efficiencies are extremely high. The control of the unit is simple and the only automatic equipment necessary is flow controller on the crude supply.

Considerable informal discussion of Mr. Brandt's subject followed from the floor.

Motor Developments

H. C. Mougey, chief chemist of the research laboratory of the General Motors Corporation, Detroit, read a paper on "Motor Developments Affecting Fuel and Lubrication," which follows in part:—

The subjects of automobile lubrication and motor fuels are of interest to two great industries besides the automobile driving public. These are the oil industry and the automobile industry. In the past, both of these industries have tended to consider these subjects from their own standpoints, disregarding more or less the other industry and the public. The automobile engineers have designed their engines for power, speed, etc., leaving up to the oil men their fuel and oil requirements. The oil men have made their oils and fuels, and then have proceeded to sell them to the public, sometimes with little consideration of the design of the engine. To secure best results, the oil, fuel, and engine must be suited to each other, and the conditions of operating of the engine, such as speed, load, continuous or intermittent driving, climatic conditions, etc., must be considered.

The necessity of the mutual suitability of fuel and engine design was recognized long before the relation of oil properties to engine performance and as a result much more progress has been made in fitting the fuel and the engine to each other. Many of the peculiarities of modern engines are the result of changes in design to fit them to the fuels available three or four years ago. Within the last few years the advertising of gasoline has changed radically and the properties of the fuel which affect its use in the engine are now featured, although several years ago it was customary to advertise such properties as gravity, which for the same volatility depends largely on the geographical source of the crude.

Recently there have been many changes in automobile design, driving conditions, fuels and oils. Engines, fuels, and oils which were satisfactory three or four years ago may be very unsatisfactory under some of the present day conditions.

Balloon tires, shock absorbers, engines more free from vibration, four-wheel brakes, better roads, and modified speed laws, are some of the factors that make higher speeds more common. In addition, the engineers, without increasing the size of the engines in proportion to the car weight, or without increasing the crankshaft revolutions per mile, have greatly increased the power of their engines.

Character of Fuel

One of the most important factors in enabling engineers to get more power from the same size engine is the character of the fuel. In an automobile engine, the ratio of the total volume of the cylinder and cylinder head to the volume at the end of the compression stroke is called the compression ratio. At the present time this ratio is about 5 to 1 on the average. In any particular engine design, an increase in the compression ratio makes it possible to obtain a higher efficiency, provided other troubles such as "knocking" do not develop. As a usual thing, it is the "knock" which limits the compression ratio and the efficiency. In general, engines are built so that they are just below the "knocking" point on the average fuel available, but most engines when carboned up will develop a "knock" when pulling full power at low speeds, especially if the engine is hot. If the average fuel available should be increased in its "anti-knock" value, then the automobile engineers would at once step up the compression and, in turn, the efficiency of their engines.

It has been found that gasolines from certain crudes are better in anti-knock value than those from other crudes, and it has also been found that changes in the methods of distilling and "cracking" make it possible to improve the anti-knock value of a fuel from any certain crude. However, at the present time, the possibility of troubles from "gum" developing in the gasoline may limit the anti-knock values that can be obtained by cracking. The addition of certain materials to the gasoline may greatly improve its anti-knock value, and it appears that regardless of how high this value has been raised by methods of refining the gasoline, a further gain can be made by these additions. The additional material which is in the greatest commercial use is tetra-ethyl lead. The amount which is added usually varies from two to three cubic centimeters per gallon or less than one tenth of one percent, depending upon the anti-knock value of the untreated fuel and the standard to which it is desired to raise the fuel.

Factors in Knocking

With any given fuel, the tendency to knock depends upon a number of factors such as the temperature and pressure of the mixture at the time of ignition, the design of the combustion chamber, the location of the spark plug, and the time of ignition. Automobile engineers are constantly improving their engines in these respects, but they usually capitalize any advantage they can obtain from design by increasing the efficiency of the engine. The oil companies are constantly raising the anti-knock value of their fuels, and there is no question but that the trend at the present time is toward fuels of higher anti-knock value and higher efficiency engines which require these better fuels.

Another change in fuels and engines is due to the tendency to make more volatile fuels. A number of years ago gasolines were very volatile. By 1915 they had decreased in volatility till the average was an initial of 110°F. and an end point of 356°F. The volatility gradually decreased each year until in 1920 the initial was 130°F. and the end point 464°F. Since then the volatility has been increased each year until in the January, 1927, survey of the Bureau of Mines, an average initial of 90°F. and an end point of 420°F. were found. It appears that the present trend is still toward more volatile fuel and that in the very near future an initial of 90°F. and an end point of 400° may be more typical of the average gasoline.

These more volatile gasolines help greatly in winter starting, and in distribution, and in addition they decrease crankcase dilution. By permitting good distribution at lower intake manifold temperature, they increase volumetric efficiency, and most of these more volatile gasolines are better than the regular grade in anti-knock value. The oil companies would like to make a further decrease in the initial, but since most modern engines are designed to have enough heat on the intake system to handle the high end point fuels, these more volatile fuels may cause trouble due to boiling or forming gas in the carburetor. Automobile engineers can design their engines for the more volatile fuels, but until they become more nearly universally distributed, it will be necessary to retain enough heat to handle the high end point fuels, and so this change must come gradually.

Lubrication Problems

Higher speeds and oil temperatures have introduced new lubrication problems, among

them that of high oil consumption. This matter of high oil consumption is principally a high speed problem. There is little difficulty in getting satisfactory oil mileage at speeds up to 40 or 45 miles per hour. Above these speeds the oil consumption may increase rapidly so that at 50 miles per hour the miles per gallon of oil may be only a small fraction of that obtained at lower speeds. Since cars are driven more generally at these higher speeds, oils which were satisfactory two or three years ago may now be very unsatisfactory under present day conditions.

Of course, different lubricating systems could be designed, so that the amount of oil used would be decreased, but automobile engineers have learned that one of the most reliable methods of preventing burned out bearings is to supply copious lubrication. Since oil is cheaper than bearing metal, especially when we compare their costs installed in the engine, engineers are probably justified in designing their engines with the safety of the bearings uppermost in their minds.

In order to show more clearly the magnitude of this change we recently made tests on a low-priced six-cylinder engine using in duplicate tests two widely advertised and distributed oils. These oils both had the same viscosity at 100 deg. F. of 322 seconds. They varied in volatility. One was practically non-volatile and the other was intermediate in volatility, typical of a large amount of the commercial oils of this viscosity. At 30 miles per hour the oil consumption for both oils was about the same, over 2,000 miles per gallon. At 40 miles per hour the miles per gallon was 1,100 for the non-volatile oil and 750 for the other. At 50 miles per hour the miles per gallon had dropped to 460 for the non-volatile oil and only 320 for the oil of intermediate volatility. With higher priced automobiles capable of making higher speeds, much greater differences can be obtained.

High Speed Consumption

If we assume that the average driving speed was 35 miles per hour in 1925, and that the average driving speed has increased five miles per hour each year to 50 miles per hour in 1928, from the above data we see that at 50 miles per hour, the assumed 1928 driving speed, we obtain only about 30 percent of the miles per gallon that we found under 1925 driving conditions. This increase in oil consumption is due to the increase in average driving speed.

The cause of this high oil consumption is high temperature of the oil at these high speeds. Most oil pumps deliver a definite amount of oil to the oil lines at each revolution of the camshaft, and at high speeds the amount of oil pumped is quite large. Since the viscosity of the oil is greatly reduced by these higher temperatures, the oil leaks out the bearing clearances and is thrown on the cylinder walls, resulting in high oil consumption. The obvious remedy is to use oil of higher viscosity so that it will not leak out of the bearing clearances so rapidly when the oil is thinned by heat.

We recently made some tests to find how much we could decrease the oil consumption by increasing the viscosity of the oil. In the particular engine under test we found that by raising the viscosity from 50 at 210 deg. F. to 75 at 210 deg. F. we increased the miles per gallon at 45 miles per hour from 420 to 750, an increase of about 80 percent.

Volatility of the oil is another factor. An example of the effect of volatility was given in the oil test previously mentioned. This effect of volatility is apparent only at high speed, due to the resulting high temperatures. If the crankcase oil is kept below 170 deg. F. this difference disappears almost entirely. Asphalt base oils have been considered to be at a disadvantage in this respect, but it is possible to obtain oils of satisfactory volatility from all crudes. The fact that high viscosity oils are required at high temperatures helps in this respect, since volatility tends to decrease with an increase in viscosity.

Higher Viscosity Oils

The objections to the use of higher viscosity oils are due to difficulty in starting in cold weather and to the greater tendency for heavy oils to cause carbon troubles. It has been found that the resistance to cranking an engine depends upon the viscosity of the oil at the cranking temperature. In the past this problem of cranking has been confused with the pour test of the oil. The pour test is simply the lowest temperature at which the oil flows under the force of gravity under certain definite conditions. The pour test has practically no effect on the power required for cranking, but it does have a great effect on the flow of the oil to the oil pump. While it is true that most oil pumps will force oil through the lines, regardless of the pour test, if the oil is in the pump, a low pour test in cold weather is desirable to insure a continuous supply of oil to the pump inlet.

Unfortunately, these desirable properties of oil do not always go together. Many oils which might be desirable on account of the fact that they do not increase too rapidly in viscosity at low temperatures have high pour tests, and many of the low pour test oils have the fault of increasing too rapidly in viscosity at low temperature. In a similar way, oils of low volatility tend to have high Conradson carbon values, and oils from crudes which easily produce low Conradson carbon oils tend to be volatile. However, work done by a number of the oil refiners has shown that it is possible to combine in one oil most if not all of the good properties of oils, regardless of the crude used.

In this discussion we have shown that viscosity is an important property of oil. However, all oils change in viscosity very greatly due to changes of temperature, and yet we know that modern automobile engines operate fairly satisfactorily over a wide range of temperatures and corresponding oil viscosities.

Wide Range of Oils

It is the aim of the automotive engineer to design his engine so that it will operate satisfactorily with a wide range of oils. In the instruction book furnished with the automobile the engineer usually tries to recommend in a general way the type of oil that will give best results. In order to avoid discrimination it would be desirable to exclude trade names, simply specifying the body of oil and mentioning any other properties which may be considered important, such as pour test for very low temperatures and freedom from volatility for very high temperatures. The other properties, including eveything known to the oil industry as "quality" of the oil, should be left to the oil companies. Unfortunately, the oil industry has not been able to agree upon what viscosities are represented by the terms light, medium, and heavy, etc., and since trade names and advertising have been built up around these names it would be difficult to change them. To remedy this situation, committees from the American Society for Testing Materials and the Society of Automotive Engineers have developed the system known as the S. A. E. viscositiy numbers by which oils of the different viscosities may be designated.

The S. A. E. system is now in use by most of the large automobile companies and it appears that its use will be practically universal in a short time.

Mr. Mougey was asked many questions following his address, several members taking issue with his statement that there was no relation between the cold test of an oil and easy cranking of a motor which, he said, was dependent altogether on viscosity at the cranking temperature.

Refinery Round Table

H. S. Bell was then called on by Mr. Lyons to preside over a symposium on refinery problems, at which six papers were read and later discussed.

L. C. Jamieson, Viking Oil Corporation, led the symposium with a paper on "Cold Settling." He told of the advantages of a tall, narrow tank and other advantages of a shallow wide tank, concluding that the best practice lay in a compromise between the two extremes. He told of the many theories as to the placing of cooling coils and said that his company after trial had decided on one set of coils near the top of the settling tank and one at the bottom. He described the insulations necessary as well as the necessity for pre-heating the oil to 90 deg. F. to drive out moisture.

Mr. Jamieson for some time had had a theory that humidity has something to do with proper settling and has kept a record four times a day of temperature and barometric pressure.

G. D. Brandt, Henry L. Doherty & Co., described experiments, not yet completed, which his company is making with high vacuum distillation with a view to cutting steam costs.

Modern Distillation

A paper on "Modern Distillation," by D. W. Hovey, Waverly Oil Works Company, was read by Mr. Bell in the absence of the author. The paper follows in part:—

There has been such a decided improvement in the method of distilling that when I was asked by Mr. Bell to write this paper on distillation I was rather at a loss as to just what distilling means and the scope this one word would allow me to cover.

My first introduction to distilling covered merly the heating of petroleum oil in almost any kind of a still, ranging from the cheese box type to the cylindrical, with very little thought given to fractionation after sufficient heat had been applied to vaporize liquid charged to these batch stills. We then ran into considerable experimenation with towers or aerial condensers, and when we had a three cut air cooled tower taking off light, intermediate and heavy streams on catch coke stills charging crude we thought we had a really flexible and efficient tower.

That this tower was a big improvement there was no question, and was of particular advantage in forming the wax crystals making a pressable wax distillate from Midcontinent crude oil without any rerunning. It was discovered in the use of this tower that manipulation of the heavy and intermediate streams by returning certain portions back to the still for rerunning was an absolute control of the pressing quality of the wax distillate. These towers are still in use on catch stills and with the batch method of operating are undoubtedly giving good service, however, the rerunning cost of the batch distillation is excessive.

The rapid strides now being made both in furnace design and fractionating equipment are fast making obsolete the old methods of distilling, and the general tendency today is for continuous pipe still operation with efficient fractionating equipment of the bubble tower type. One of our first changes to continuous crude distilling was with a battery of old shell stills formerly used for batch operation. With a battery of six shell stills of various sizes and shapes with no fractionating equipment other than ordinary vapor pipe the crude throughout was increased over three times the amount formerly put through on the batch operation, and in addition the amount of rerun was reduced by more than half.

Fuel Burning Efficiency

Today we approach distilling from an engineering and scientific standpoint, and are first concerned with the design of the furnace, which is now approached from a b.t.u. standpoint, which in the past was almost unheard of. We demand the type of furnace which will burn the fuel in the most efficient manner and transmit this heat to the oil with the least possible loss. The radiant heat and recirculating type of furnace have already made a material saving in fuel consumption.

The engineer now designs the furnace, calculating the number of square feet of heating surface required for a given amount of oil to be heated to the required temperature. The fractionating equipment to be added to the pipe still is probably the most important feature and allows many heat saving and controlling devices.

We now have for example a cracking still which through the addition of crude fractionating equipment distills off all of the natural gasoline and kerosene contained in the crude and supplies 100 percent charge to the cracking equipment, entirely from what would otherwise be wasted heat from cracking.

The flash tower or evaporator tower and the fractionating tower of the cracking unit were duplicated for the crude distillation partially controlling the temperature of the cracking towers by pumping the crude oil through closed coils in cracking towers and discharging into first tower or flash tower of the crude oil fractionating equipment. Super-heated exhaust steam is used in this tower and the desired cuts of gasoline, naphtha and kerosene are taken from the fractionating tower which strips the crude of all the natural gasoline, naphtha and kerosene, leaving the hot topped crude ready for charging to the cracking still.

In running this type of equipment on one crude oil we developed very serious corrosion troubles and salt deposits in the cracking tubes, which made the cracking of this topped crude very dangerous, and resulted in a rather novel hook-up of the cracking furnace to overcome this trouble. We knew of no practical way to eliminate this salt condition from the topped crude in a continuous operation, and it was decided to distill off the gas oil from the topped crude charging gas oil only to the cracking tubes.

We had but one furnace to do this in which required this one cracking furnace be a combination pipe still for topping crude and cracking still for cracking the gas oil produced from same furnace. The type of furnace we were using was the carborundum type radiant heat. We disconnected the convection bank of tubes and charged the topped crude from the crude evaporator tower to the convection bank of tubes and then to the evaporator tower of the cracking unit, picking up enough heat in the convection bank of tubes, and additional heat from evaporator tower, to reduce the topped crude to a heavy fuel oil of about 14 gravity, distilling the gas oil overhead from the evaporator tower and picking up same in the bottom of the fractionating tower and then pumping with hot oil pumps from mixing tank through the cracking coils.

Uniform Velocity

In order to maintain uniform velocity through the cracking coils it was necessary to maintain a uniform level of gas oil in the mixing tank, which at times required the addition of gas oil from other source and at times it was possible to withdraw some of this gas oil back to storage. I would hardly call this a fool-proof operation, as it requires rather delicate balance to distill off from the back end of the furnace enough gas oil to supply the front end. However, we were successful in keeping this in operation for considerable length of time while building a separate pipe still to replace the split furnace we were using, and this experience is merely given as an illustration of the flexibility of the present distilling equipment when emergencies arise requiring operation somewhat off the beaten path.

In addition to the design of the furnace, fractionating equipment, etc., there is always the chemical characteristics of the crude itself to be considered, particularly from corrosion standpoint, as in the case of the crude mentioned above. We had with this one crude a plugging of the crude preheating coils which was apparently due to the salt and some emulsion peculiar only to this particular crude, which we have not had when operating with other crudes. That this was partially if not entirely due to the salt content is borne out by the fact that after these coils were plugged, washing out with water would entirely remove this condition, and on further experimenting we discovered that the addition of varying amounts of caustic would also prevent collection of any deposit in the coils, and, in fact, we have removed this during the operation by using excessive amounts of caustic for a short time. The use of the caustic, incidentally, forced us to discontinue the use of aluminum gaskets which were entirely replaced with steel gaskets. From this same crude oil corrosion troubles were very excessive in the tubular type of gasoline condenser we were using, and in order to overcome this ammonia was injected in the fractionating tower and in the vapor outlet.

Chemicals Counteract Corrosion

The use of chemicals to counteract corrosion naturally governs the metals used in construction of condensing equipment, etc. The use of ammonia in the one case preventing use of tubes made of copper bearing metal which we have found resists corrosion in similar type of condenser much more than the steel tubes we were compelled to use.

The development of fractionating equipment has undoubtedly been the most important and greatest boon to the distilling end of the refining industry. The present day bubble type tower not only eliminates rerunning but absolutely controls the distillation range of the products taken off.

Many technical papers have been published covering detailed construction and operation of bubble type towers and also arguments for and against "these towers versus packed towers," together with data as to results from various shapes and sizes of bubble caps, spacing of trays, etc., which is in itself a subject of interest in deciding on actual construction.

The important fact remains that we have today distillation equipment which, with the development of furnace and fractionating equipment, will not only in one operation distill and fractionate all of the products contained in the crude oil, but will do this in a very limited area. As for example, we have on a ground space of 125 feet by 140 feet equipment which will distill, crack, fractionate and treat into finished products approximately 3,000 barrels of crude oil per day. This as compared with equipment necessary and space required a few years ago will illustrate the enormous strides made in the distillation of crude oil.

While the above covers briefly the distillation of crude oil for recovery of lighter products only similar strides have been and are being made in the distillation of crude oil for production of lubricating oils, and while the pipe still and fractionating equipment are more or less the same, vacuum is applied as against pressure for production of the lighter ends. While there has been considerable development of continuous vacuum distillation for lubricating oils this has not been as complete as for the lighter ends, and while continuous operation is now successful with some crudes, there is no doubt in my mind that this will very quickly be developed for practical use with all grades of crude oil.

Maintaining Production

MacLean Houston's paper on "Maintaining Production" was read by Howard H. Green in the absence of Mr. Houston. The paper follows:—

All of us at times either overlook or forget to order that extra drive chain for the wax oil chiller or something else just as important. We may overlook the need of a new part, or we may realize the need and neglect the order.

It will be the object of this paper to bring out the cost of such negligence, if possible, in order to impress upon the operators and managers of our plants the importance of keeping all equipment working at its utmost capacity.

To arrive at a basis for future calculations, let us first consider the plant that shuts down completely every Sunday. We will assume that it is a complete Pennsylvania refinery running 1,000 barrels of crude per working day; that it has net profits of 50 cents per barrel of crude run and an operating and overhead expense (including all costs except that of crude oil) of 80 cents per barrel of crude run.

If it shuts down on Sunday there would first be the straight loss in profits of $500 per week or $26,000 per year. This loss is bad enough, but it has been explained to me by the claim that the crude can be run some other year and the profit made at that time.

But what about the loss from expenses? We have paid out cash for these and will never get it back. The expenses of a plant shut down for one day at a time will be at the very least 50 percent of the expenses of the plant operating, not including the cost of crude oil. Based on this percentage and the assumptions above the expenses per day would be $370 for Sunday and $740 for week days. The Sunday expenses are a dead loss, amounting to $370 per week or $19,240 per year.

From this we must reach the conclusion that a complete shutdown for each of the fifty-two Sundays in the year will be 326,000 plus $19,240, or a total of $45,240 per year.

Cost of Shut-Down

Basing our problem on this example, each of us can insert the figures that apply to his own plant and figure the cost of a complete or partial shutdown. Or if it is a case of a still being shut down we can divide the total expenses (not including crude) plus the total profit for a month by the number of still days (number of stills times 30) that the plant has available. If you will do this with your plant figures you will realize to what extent you should spend money to keep your stills in operation every day.

Someone in the plant should make it his special business to study each shutdown, with the idea in view of avoiding a repetition in the future. When you go through the other fellow's plant ask about the problem that is worrying you. Nine times out of ten he would rather talk about shutdowns and how to avoid them than he would about how he makes his particular grade of oil.

Now let's consider a few definite examples that one actually sees through the Pennsylvania refineries. A few plants let a still cool for twenty-four hours before they send men in to clean it. Other plants use air jets or blowers and have the men in the still within three hours after it is pumped out. How many of us have not seen a filter house at a standstill waiting for the steam pressure to come up? I know of an actual case where a certain plant offered a man a position because he was able to show them how to start up their wax house. It was shut down on account of the failure of only one run of a chilling machine.

Shut-Down Causes

The only excuse is poor management, but very few men can say that their earth burners were not loafing one day and are behind in their work the next. We all know that the roofs of lubricating oil tanks spring leaks just at the wrong time, when they are full of finished oil. We have all had the railroad inspectors condemn a tank car for repairs after it has been loaded. We did not order the new earth for the filter house in time. A fire is caused by carelessness, defective equipment or poor design.

Any of us could, for another hour or so, go on mentioning these things which cause a loss in production. They all cost money and more money than most of us realize.

Then there is another type of trouble that also causes a serious loss of production and money. That is, that the finished oil does not meet the buyers' specifications. If it is found to be off test before it leaves the plant it invariably causes a loss in production. It is more costly to rerun oil that should be finished through the stills than it is to let the still stand idle, and sometimes it is far more costly to try to bring oil to test by running some of higher specifications and mixing than it is to rerun.

If it is found to be off test when received by the buyer, it usually causes an adjustment in the selling price and always a dissatisfied customer, which is worse. The only thing worse than losing production in our plants is losing an outlet for the goods we produce.

In short—profits can be materially increased by the intelligent use of equipment.

Filter House Practice

"Filter House Practice" was discussed by J. B. Northrop, Ohio Valley Refining Company, St. Mary's, West Va., in the following paper:—

Decolorizing of lubricating oils throughout the Pennsylvania refining district involves expenditures of an enormous sum of money, probably exceeding one-third of the entire manufacturing cost of those plants decolorizing the larger proportion of their lubricating oils. Naphtha, steam, labor, investments, depreciation, insurance and losses, all enter into the cost of the finished product.

Losses, in the judgment of the writer, are the largest single factor totalized against the final cost per gallon. These losses are not all traceable to vapor losses of naphtha used in cleansing the clay, considerable losses of the oil occuring, being burned up in the kiln from improperly washed and steamed clay. Still other losses occur in reclaiming filter washed or bright stock from the centrifuging or settling department. To prevent these losses every means that could possibly be devised should be utilized. Decolorizing stock in solutions of gasoline for cold settling or centrifuging should be done only in gas tight equipment providing each filter with look boxes so that the operator may determine at a glance just what is taking place at all times. If a gas recovery system is a part of your equipment, by all means connect up to these tanks. All vapors blown from filters when steamed should be carefully condensed before liberating to the air to prevent as much as possible losses from this source, and to determine how efficiently the cleansing of your clay is being done, taking an occasional sample of the average of the entire filter to your laboratory. Place six to eight ounces of the clay in an A. S. T. M. distillate flask, in turn connecting this up to your regular A. S. T. M. condenser, heating the clay gradually to distill off any naphtha or oil that may remain in it, basing this back on the number of tons of clay contained in the filter.

Dirty Filters

I am sure that a poorly washed and steamed filter or those classified as dirty giving off black smoke when being restored will give you something to think about. Such a filter often runs from 20 to 40 gallons of oil per ton of clay or more than sufficient to offset any profits you might hope to have from that particular filter. In addition to the losses the efficiency of the clay will be seriously affected by the carbon which forms in burning up the oil in the kilns. One or two companies manufacturing special kilns today will, aided by the oxygen in the air by introducing this in the clay bed while it is still hot, remove this carbon and restore the clay to approximately its original efficiency but not with the degree of ease and speed that they can restore cleanly washed clay.

The simplest method that has ever come to the attention of the writer of determining the efficiency of old clay as compared to the new, is as follows:—Select a small sample eight to ten ounces of new clay which is giving satisfactory results, grinding or pulverizing this until it will all pass through a 100-mesh screen. Follow the same procedure with the sample of the old clay on which you are desirous of determining its efficiency in relation to the new. Fill two small glass vessels with exactly the same amount of oils of the same grade, using not too large a sample (never to exceed a pint, preferably 200 neutral unfiltered) noting carefully the color of the original sample, placing in each container the exact amount of clay, both old and new, by weight, heat to 150 temperature and maintain for twenty minutes, constantly agitating, strain through filter paper, taking the color cuts made by each clay, figuring this back against your original sample, will give you consistent results which cannot be obtained by any other method known to the writer. Just what loss of efficiency should determine the number of times clay can economically be restored is a matter for each individual plant to decide for themselves and depends a great deal on the material and the color to which they are decolorizing as well as the grade and color of the crude from which the material is made. The darker crudes produce proportionally a smaller yield of a given color naturally than will the lighter grades. I, therefore, know of no set rule that can be devised for an average yield per ton of clay adaptable to all plants.

Practical Methods

There are many methods in practical operation in soaking and running filters ranging all the way from filtering under pressure up to 20 pounds per square inch down to pumping the oil up through the bed of clay. Most of these give good results in the particular plants in which they have been perfected. Pressure up to 20 pounds for filtering lubricating oils of a viscous nature, no doubt, are justifiable, if for no other reason than the saving of time that can be accomplished both in soaking and by maintaining a back pressure on the bottom of the filter, channeling will be prevented with its loss of production.

The writer is personally in favor of filtering all oils that possibly can be economically in solutions with as high as 50 percent to 60 percent of naphtha. Much greater speed can be obtained in running time as well as draining, less naphtha consumed to thoroughly cleanse the clay and yield almost double that obtained on straight 600 stock, enabling you to shorten your recycling period per filter 24 to 48 hours.

Due consideration should be given the contact decolorizing of lubricating oils in at least all new installations of any size. This method having been so perfected at the present time that

(*Continued on page 53*)

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Industrial Chemicals

Producers Advance Stearates Sharply on Higher Raw Material Costs—Tin, Copper and Zinc Salts Decidedly Firm

Trade in industrial chemicals was gradually resuming more active proportions. Most producers were agreed that the tonnage which was changing hands compared quite favorably with that of corresponding periods in previous years. It was as yet too early to look forward to the announcement of contract prices for 1929 deliveries, but if the practices of former years are continued such announcement should be forthcoming during the last two months of this year. The contract movement in the major items held well up to previous totals. In fact shipments of alkalis, as well as calcium chloride and the heavy acids, were quite large.

As a result of the continued strong tone in stearic acid, the producers of stearates last week announced advances of from 1½c. to 2c. per pound, putting the market in the range of 21c. to 22c. per pound. Improvement in demand for sal ammoniac from battery manufacturers was quite pronounced and contract withdrawals in the chemical were reported to be increasing at a satisfactory rate. There was also a pickup in the volume of sales of other ammoniates, including aqua, anhydrous, and carbonate. Demand for refined sulphur from the rubber manufacturers continued along comprehensive lines.

Higher prices for a number of the metals, including copper and tin, made for firmer conditions in their derivatives. The demand for blue vitriol was seasonally quiet, but contrary to the experiences of previous years the market was quite firm in reflection of the ¼c. per pound advance in the metal. An irregular upward revision was noted in the salts of tin. Barium chloride was held at an advance of $3 per ton over former levels. Domestic producers of oxalic acid pointed to a decidedly firm market, with supplies none too plentiful. Acetic acid was another item which was beginning to reflect the extensive contract movement which had been in progress. The raw material acetate of lime was quite firmly held by producers as wood plants were not expected to be in normal operation until the close of November.

Current prices on industrial chemicals, formerly printed on pages 8 and 10, are now printed at the end of this market report.

Price Changes

Prices were changed during the past week as follows:—

Advanced	Reduced
Aluminum stearate, 2c. per lb.	Tin crystals, ½c. per lb.
Barium chloride, $3 per ton.	
Calcium stearate, 2c. per lb.	
Copper metallic, ¼c. per lb.	
Magnesium stearate, 2c. per lb.	
Tin metallic, ¾c. per lb.	
bichloride, ¼c. per lb.	
anhydrous tetrachloride, ¼c. per lb.	
Zinc stearate, 1½c. per lb.	

Comparative Values

Index numbers compiled from twenty-five typical chemicals on the basis of a normal of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
155.7	155.7	155.7	161.4

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Alum.—The producers reported that demand was keeping up well, and that the general conditions were quite firm. A moderate import movement via Holland had not influenced values.

Aluminum Sulphate.—A firm market condition was pointed to by producers last week. The regular contract demand from the paper and dry color manufacturing trade was said to be reaching totals that compared quite favorably with those of a year ago at this time. Producers were continuing their quotations of $1.90 to $2.05 per 100 pounds, car lots, on the iron free grades, whereas less than car lot quantities sold at considerably higher prices.

Aluminum Stearate.—The price was advanced 2c. by manufacturers to a basis of 22c. per pound as the result of scarcity and the prevailing high prices for stearic acid, the latter having recently advanced to the extent of 1c. to 2c. per pound.

Ammonia, Anhydrous.—The producers were slowly catching up with belated deliveries incurred during the past season of extensive purchasing. The regular contract basis stood at 13½c. to 14c. per pound in cylinders.

Ammonia, Aqua.—A fairly equitable balance was being maintained between supply and demand. Production has kept within the required bounds during the past few months and the product was, therefore, being steadily maintained at 2½c. to 2¾c. per pound in tanks, and 3c. to 3½c., drums, less than car lots. The leather, textile, paper, soap and chemical industries were all taking fair sized quantities at the ruling quotations.

Ammonia, Bicarbonate.—The trade was watching price developments in this item. The revision named in July had not resulted in any substantial increase in the volume of contract bookings, no doubt because of the fact that consumers had booked requirements at the higher prices which had ruled earlier.

Ammonia, Carbonate.—The quantities of this product required in the production of ammonium salts were quite large; hence a steady undertone dominated the market. Receipts of the foreign were coming along in fair volume.

Ammonium Nitrate.—While demand from explosives manufacturers was less active than it had been, there was no suggestion of a change in the regular contract basis of 6c. per pound, car lots, casks, and up to 12c. for less than car lot quantities.

Ammoniac, Sal.—The volume of contract withdrawals for the account of battery manufacturers was keeping well up to recent records. The increasing activity of the battery manufacturers was a subject of special interest, although it was of interest also to note that substantial quantities were moving for the account of the textile industry, while the metallurgical industry was also a substantial buyer. Imports were still finding their way here via Holland, but producers were of opinion that foreign competition was less of a factor than it had been.

Antimony Salts.—Chinese shippers had not modified their ideas of price in the slightest degree during the course of last week's trading; hence the tone of the salts was steady, producers quoting the needle on the basis of 12c. per pound, while oxide was held for 12c. to 13c. per pound. There were some fair sized arrivals of the oxide via Chili and Holland.

Argols.—Importations during the first seven months of the year were less than half as much as during the same time a year ago. Receipts via Latin-America have been nearly nil of late. This contributed a firm tone to the market, although quotations were off a little from the best point recently touched.

Arsenic.—The glass-making demand was expected to give a better account of itself during the fall months. Meanwhile, the white was resting on a basis of 4c. per pound, car lots, kegs, and up to 5c. per pound for less than car lot quantities. The red appeared in fairly liberal supply at 9½c. to 10c. per pound.

Barium Salts.—Domestic producers were naming $63 per ton, car lots, for the chloride crystals in barrels or bags and for smaller quantities the price range extended to $70 per ton. The available stocks of foreign were limited. The domestic producers had sold their September production ahead and were only quoting for future shipment. On future shipment the foreign was quoted at about the same basis as the domestic.

Bleaching Powder.—New business for the account of the paper making and textile industries did not bulk

Valuable information on Imports and Exports of Industrial Chemicals is given in port lists beginning on page 5.

Sulphate of Alumina
MANUFACTURED BY
The Jarecki Chemical Company
FOR FULL PARTICULARS ADDRESS
The Isaac Winkler & Bro. Co.
Sole Selling Agents
CINCINNATI, OHIO
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particularly large. However, contract shipments were keeping up at the scheduled prices of $2 to $2.35 per 100 pounds, car lots, drums, and $2.15 to $2.60 for less than car lots.

Blue Vitriol.—The advance of ¼c. per pound in copper to a basis of 15c. delivered to the Connecticut Valley and 15¼c. per pound c. i. f. European ports with subsequent reports that domestic sales had been made on basis of 15⅛c. per pound had not definitely affected the market. It was noteworthy, however, that instead of being weak as is customary during the quiet stretch usually experienced during September and October blue vitriol had turned quite firm with the probability that another slight advance in the price of copper might produce an advance over and above the current quotation of $5.30 to $5.40 per 100 pounds car lots, barrels, and $5.85 to $6 per 100 pounds for less than car lots, barrels. Both foreign and domestic business in the metal has been running at a comparatively high rate it is understood. Sales of copper for export up to the middle of last week had been in excess of 50,000 tons.

Calcium Chloride.—Shipments continued to reach about normal totals for this season of the year. The producers were adhering strongly to previous valuations on the product.

Calcium Stearate.—The producers announced an advance of 2c. per pound which established the market at 22c. per pound in barrels. Back of the advance was the recent appreciation in values of the stearates.

Ethyl Acetate.—The producers were busily engaged taking care of contract deliveries in this product. Firmness of acetate of lime had given the market a strong undertone.

Fluorspar.—The enameler's grade continued to meet a widespread demand and was quite firmly held in all quarters of the trade.

Glauber's Salt.—A resumption of operations in the textile trade was expected might tend to hasten withdrawals to some extent. The contract market remained on a basis of $1 per 100 pounds car lots, bags, whereas foreign could be had for about 70c. to 80c. per 100 pounds. Imports via Holland were continuing rather full.

Lead Acetate.—Despite an advance to 6.50c. per pound for the metal the result of a stronger statistical position there was no suggestion of any change in the chemical. The sulphate was maintained at 8¼c. per pound barrels works.

Lime Acetate.—Producers were adhering strongly to their recently revised price basis of $4 per 100 pounds. There has been a gradual resumption of operations on the part of some of the wood plants over the country which had been operating well below normal throughout the summer months and the feeling was current that by the end of November a majority of these plants would again be in active operation. Meanwhile offers were rather limited and the condition was reflected in the market for acetic acid.

Magnesium Chloride.—The producers found no fault with the manner in which demand had kept up. The quotation of $36 to $37 per ton car lots, barrels, works named by domestic producers compared with $31.75 to $33.50 per ton named by holders of the foreign.

Magnesium Stearate.—The producers were firmer in their views, quoting a minimum of 22c. per pound in barrels because of the recent strengthening of stearic acid.

Nickel Salts.—The double sulphate was quoted at 10c. per pound in barrels and the single at ½c. per pound more. A fair amount of business came under review during the week from the plating industry.

Potash Carbonate.—A revival of activity in some branches of the silk and rayon industry and increased demand for the product from a number of other industrial users was remarked during the week. The price range extended from 5⅜c. to 8¼c. per pound, depending on quantity and quality of the product.

Potash Caustic.—The outlook for a larger volume of business during the fall months was adjudged to be quite good. It was rumored that an upward revision might be seen in syndicate prices for some of the potashes on the other side and this was producing a somewhat wider inquiry.

Potash Chlorate.—This product was established on the basis of 7½c. to 7¾c. per pound car lots, casks for the foreign although domestic producers were quoting it at 6½c. to 7c. per pound, car lots casks, at the works. A steady and continuous contract call has been apparent from the match manufacturers.

Potash Permanganate.—Apart from the continuance of the usual routine call for additional lots which were procurable on the basis of 15c. to 16c. per pound for the technical grades in kegs, there were no features of other than routine interest last week.

Potash Prussiate.—The principal domestic producers had not changed their regular contract schedules calling for 17½c. to 18½c. per pound for the yellow in casks and 38c. to 40c. per pound for the red in casks. Buyers appeared to be willing to restrict their purchases to quantities required for actual needs.

Salt Cake.—The uncertain conditions which had developed early in the summer had not been entirely eliminated and surplus lots continued to press from various directions at as low as $10 per ton.

Saltpeter.—The call for this product from the meat packing industry and from other industrial users continued along fairly comprehensive lines. Quotations remained last week on a basis of 6c. to 6¼c. per pound for the granular in barrels, whereas the powdered grades were being held at 7¼c. to 7½c. per pound.

Soda Acetate.—The resumption of activity in so many quarters of the textile trade was provoking a better demand for this salt. It was being quite firmly maintained at 5½c. to 6c. per pound in barrels.

Soda Ash.—Shipments of this chemical against the extensive volume of contracts that had been entered into early this year continued to assume satisfactory dimensions. Both the light and the dense ash were meeting an active call and there was nothing in the condition of the market to suggest that producers would do other than maintain existing contract prices or perhaps better ones for next season. However, it may be that 1929 contract prices will not become available for a couple of months yet. This is one year in which consumption appears to have held up fully to the best totals previously recorded.

Soda Bifluoride.—A range extending from 17½c. to 19c. per pound in barrels was being named by the various sellers. The product was meeting a fairly good demand for laundry purposes and was steady at the above prices.

Soda Caustic.—The producers had no new developments to point to last week. They indicated that contract shipments were holding well up to seasonal totals, but suggested there was room for further improvement from some branches of industry. Prices were not changed last week, although suggestions of some shading in outside brands were not wanting. Export sales were being arranged on the basis of $2.80 to $3.10 per 100 pounds f.a.s., although the inquiry was not particularly brisk.

Soda Chlorate.—Demand for this product which was being so widely utilized for the removal of wild morning glory, quack grass, etc., along the rights of way of railways and for similar purposes in agricultural sections had not abated as yet despite the lateness of the season. The domestic producers were continuing their quotations at 6¼c. to 6½c. per pound, works, kegs; and 5¾c. to 6c. per pound, seaboard, kegs.

Soda Phosphate.—A rather liberal import movement was continuing in this product, but this had not influenced values in the slightest.

Soda Prussiate.—The makers were adhering firmly to their previous views of 11c. to 12c. per pound for the yellow in casks at works.

Soda Silicofluoride.—The ceramics industry was taking substantial quantities at 5¼c. to 5½c. per pound in barrels. The new import impost to be assessed on the basis of 25 percent of the American valuation is likely to become effective as of September 30th.

Sulphur. — Rubber manufacturers continued as rather active buyers of the refined grades. Crude brimstone was meeting a good demand from the manufacturers of sulphuric acid.

Tin Salts.—General conditions of the market were reported as being decidedly firm last week. The metal showed an improvement in the amount of ⅜c. The manufacturers of tin salts had accordingly revised their prices for tin bichloride to 15c. per pound in barrels, while quoting the crystals at 36½c. and anhydrous tetrachloride of tin at 31¼c. per pound.

Zinc Salts.—Textile operations were showing a gradual expansion and resulting in a greater call for zinc dust, which was quoted at 8¾c. to 9c. per pound, car lots, barrels; and 9¾c. to 11c. per pound, less than car lots, barrels. Stearate of zinc was advanced 1c. to 21c. per pound by producers on the stronger tone which had developed in all of the stearates.

Acids

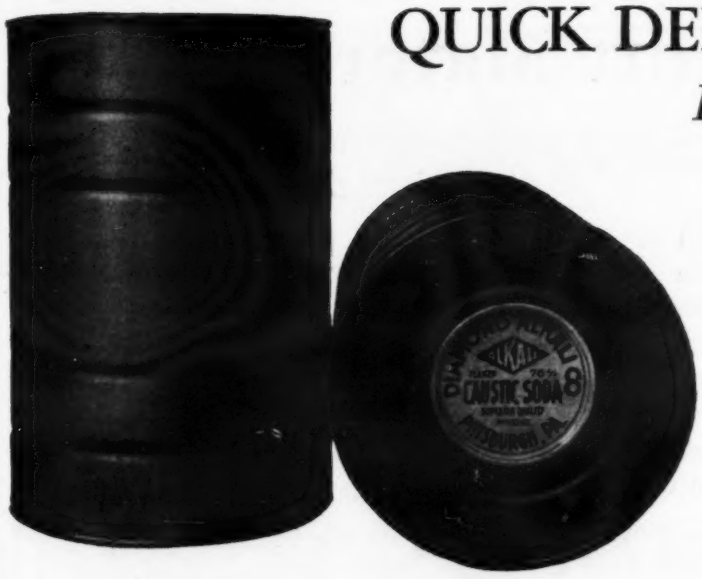
A rather tight situation was reported to be developing last week in acetic acid. The outlets for this chemical have shown a gradual increase, one of the important ones being in the raw materials, which are utilized by lacquer makers. Moreover, the raw material utilized for production of acetic acid was in none too plentiful supply, since most of the important wood plants here and in Canada had been closed down ever since the summer and most of them will not resume normal operations again until about November. Aside from continued good contract withdrawals in most of the mineral acids there were few new features in other directions.

Comparative Values

Index numbers compiled from twelve typical acids on the basis of a normal of 100 for August 1, 1914, compare as follows:

Last week.	Prev. week.	Last month.	Last year.
106.9	106.9	106.9	109.1

Price changes made Saturday up to



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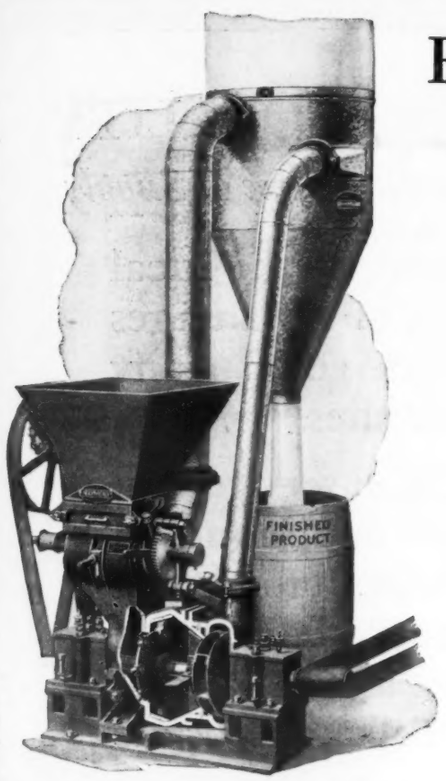

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noon and other last-minute market developments are reported on page 2.

Acetic.—Stronger conditions were reported to be developing. However, the producers had not changed their existing contract schedules last week. Acetic anhydride was maintained at 28c. to 29c. per pound in drums.

Boric.—Steady conditions continued to rule in this item. Both the export and domestic outlets have been larger of late.

Chromic.—The position remained steady at prices named within the past few weeks. In lots of 1,000 pounds or more the range was 20c. to 21c. per pound in drums.

Citric.—It was late in the season and there was a natural letup in the contract movement. Producers continued to quote 46c. per pound for the crystals in barrels, and 47c. for the powdered. The foreign was not competing, as it could not be secured under 59c. to 60c. per pound in kegs.

Formic.—Actual changes appeared to be lacking in this product last week. Dealers in the foreign 90 percent were holding it for 11c. to 12c. per pound in carboys.

Hydrofluoric.—Not much change from the recent character of trading appeared in this item.

Lactic.—The principal buying came from the manufacturers of leather deope. Prices remained steady.

Muriatic.—The producers reiterated firmly they were securing a good demand from the trades and industries over the country. The price situation remained quite firm.

Nitric.—Reflecting the strong underlying conditions in all other mineral acids the tone of this product remained quite firm last week.

Sulphuric.—Although a widespread demand was being experienced for this product from manufacturers of fertilizer materials, there was no unusual feature as regards the local domestic consumption.

Oxalic.—This acid was meeting a steady and persistent demand. It is now an all the year round favorite in many industries. Prices remained at 11c. to 11½c. per pound in barrels.

Tartaric.—The producers had not altered their quotations on this acid, despite the fact that other products based on argols were recently revised upward. A fairly general demand was being experienced all round.

Insecticides

Since the season had virtually terminated at all points the movement outward had practically ended. The producers declared practically no late-season demand had been seen for calcium arsenate. So far there has been no announcement of contract prices for 1929 and it was doubtful when the new price schedules would be named. The recent advance of ¼c. per pound in copper made for continued firm conditions in copper carbonate, which was being taken in somewhat larger quantities by wheat growers for cleaning seed wheat. While the boll weevil has not been much of a factor in the insecticide market for the past fortnight, a great deal of concern was felt last week over the flooding out of numerous of the most productive cotton centres. Whether this will change the insecticide outlook was a question.

Bordeaux Mixture.—Steady conditions ruled last week. Prices were on a basis of 10½c. to 11½c. for the paste in barrels.

Calcium Arsenate.—The fact that no late-season buying of any consequence had appeared prompted conjectures that a considerable carryover into the next season might be seen.

Lead Arsenate.—The advance to 6.50c. per pound in the metal had not influenced quotations for the arsenate, which stood at 13½c. to 15c. per pound in drums.

Paris Green.—The season had been a generally satisfactory one and bulk goods had met a decidedly good movement on the basis of 23c. per pound,

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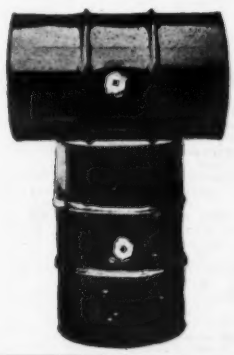

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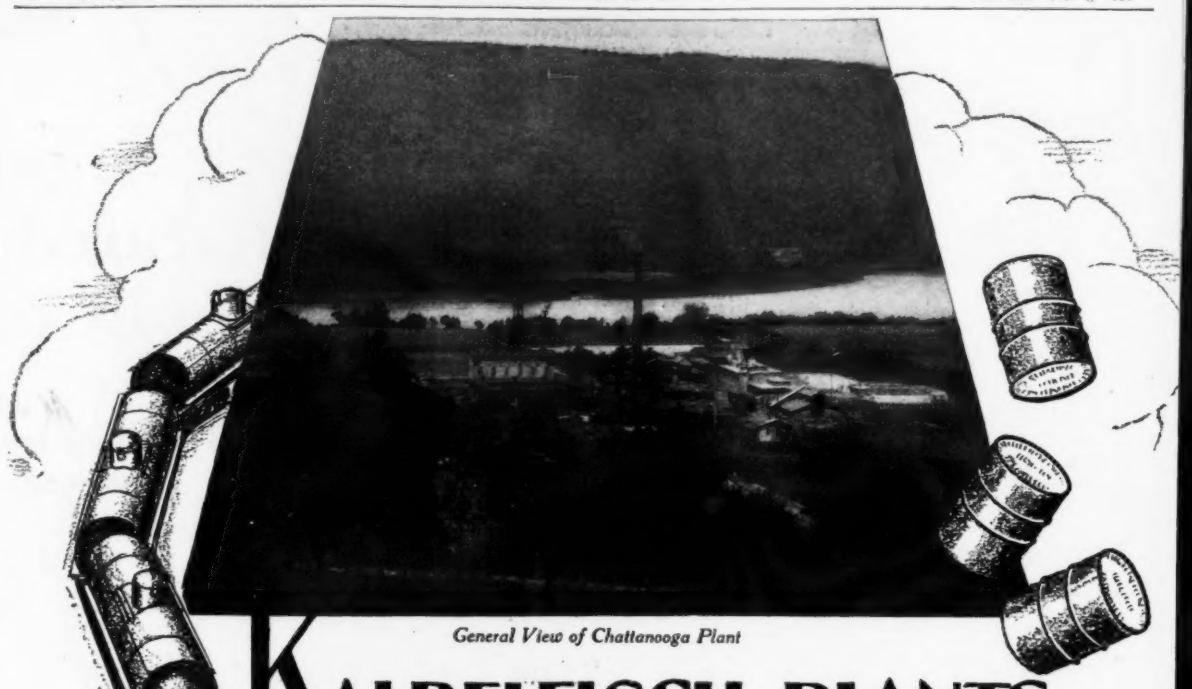
from which the price range extended to 35c. for small quantities.

Current Prices

(For late price changes, see page 2)

Aldehyde ammonia, drums	lb.	.65 @	.70
Alum, ammonia, burnt, U.S.P., barrels	lb.	.15 @	—
ground, barrels	100 lbs.	3.35 @	3.45
lump, barrels	100 lbs.	3.25 @	3.35
powder, barrels	100 lbs.	3.65 @	—
ammonia-chrome, barrels	lb.	.05¼@	.05½
potash, ground, barrels	100 lbs.	3.10 @	3.20
lump, barrels	100 lbs.	3.00 @	3.10
powder, barrels	100 lbs.	3.40 @	—
potash-chrome, barrels	lb.	.04½@	.05
soda, barrels	lb.	.03½@	.04¼
Aluminum, 98@99 p.c., virgin	lb.	.2430@	—
hydrate, heavy, barrels	lb.	.06½@	.08½
light, barrels	lb.	.16 @	.17
sulphate, commercial, works, bags	100 lbs.	1.40 @	1.55
iron free, works, bags	100 lbs.	1.90 @	2.05
Ammonia, anhydrous, cylinders,	lb.	.13½@	.14
aqua, 26 deg., carboys	lb.	.05¼@	—
drums, car lots	lb.	.03 @	.03¼
less than car lots	lb.	.03¼@	.03½
tanks	lb.	.02½@	.02¾
bicarbonate, car lots, barrels, contracts	100 lbs.	6.00 @	—
less car lots, barrels, contracts	100 lbs.	6.25 @	—
shipment	100 lbs.	6.50 @	—
bifluoride, barrels	lb.	.21 @	.22
carbonate, domestic, barrels	lb.	.12 @	.13
imported, casks	lb.	.08 @	.10
chloride (see ammoniac, sal).			
fluoride, barrels	lb.	.19 @	.21
nitrate, technical, casks	lb.	.06 @	.12
persulphate, cases	lb.	.27 @	.30
phosphate, technical, barrels	lb.	.12½@	—
sulphocyanide, kegs	lb.	.36 @	.48
Ammoniac, sal, gray, domestic, car lots, barrels	100 lbs.	5.40 @	5.50
less car lots, barrels	100 lbs.	5.90 @	6.50
imported, casks	lb.	.05½@	.06
lump, imported, barrels	lb.	.10½@	.11
white, domestic, granular, casks, car lots, contracts, works	100 lbs.	4.70 @	—
imported, casks	100 lbs.	4.70 @	5.00
Antimony chloride solution (butter of), domestic, carboys	lb.	.17 @	.18
imported, carboys	lb.	.14½@	—
metal, bulk	lb.	.10¾@	—
needle powdered, barrels	lb.	.12 @	—
oxide, barrels	lb.	.12 @	.13
sulphuret, golden, barrels	lb.	.16 @	.20
vermilion, barrels	lb.	.38 @	.42
Argols, crude, 30 p.c., casks	lb.	.07½@	—
80 percent, casks	lb.	.15 @	.15½
Arsenic metal, cases	lb.	.50 @	.55
red, kegs	lb.	.09½@	.10
white, powdered, kegs	lb.	.04 @	.05
Barium carbonate, domestic, bags	ton.	57.50	@60.00
imported, bags	ton.	60.00	@68.50
chloride, crystals, domestic, barrels or bags	ton.	63.00	@70.00
imported, bags	ton.	63.00	@70.00
dioxide, imported, drums	lb.	.12 @	.13
fluoride, barrels	lb.	.12 @	.20
hydrate, barrels		.04¾@	—
Bleaching powder, car lots, works, drums	100 lbs.	2.00 @	2.35
less car lots, works, drums, 100 lbs.		2.15 @	2.60
Blue vitriol, 99 p.c., crystals, car lots, barrels	100 lbs.	5.30 @	5.40
less car lots, barrels	100 lbs.	5.85 @	6.00
Brimstone (see sulphur).			
Cadmium sulphide, boxes	lb.	.75 @	.85
Calcium carbide, drums	lb.	.05 @	.06
chloride, flake, domestic, 77 to 80 p.c., bags	100 lbs.	1.94 @	2.00
drums	100 lbs.	1.94 @	2.00
car lots, works	ton.	25.00 @	—
imported, 75 p.c.	ton.	23.00	@24.00
solid, domestic, drums, 73 to 75 p.c.	100 lbs.	1.69 @	1.84
car lots, works, drums,	ton.	20.00 @	—
solid, imported, shipments, drums	ton.	18.50	@20.00
hydrate, works, bags	ton.	11.50	@12.00
barrels	100 lbs.	.60 @	.85
phosphate, barrels	lb.	.07 @	.08
Carbon bisulphide, drums	lb.	.05 @	.06
dioxide, cylinders	lb.	.06 @	.08
tetrachloride, car lots, dms.	lb.	.06¼@	.06½
less car lots, drums	lb.	.06½@	.07
Chlorine, liquid, car lots, works, cylinders	lb.	.05¾@	—
contracts, cyls.	lb.	.05½@	—
less car lots, works, cyls.	lb.	.08¼@	.09¼
contracts, cyls.	lb.	.08 @	.09
tanks, works, prompt	lb.	.03¾@	—
contracts, tanks	lb.	.03½@	—
Chloropicrin, commercial, cylinders, works	lb.	1.00 @	1.35
Chrome acetate, 8 p.c. chrome, barrels	lb.	.04¾@	.05¼
Copper, electrolytic	lb.	.15 @	—
carbonate (see Agricultural Insecticides.)			
chloride, barrels	lb.	.19 @	.25
cyanide, technical, barrels	lb.	.51 @	.52
oxide, black, kegs	lb.	.20 @	.25
sulphate (see blue vitriol).			
Copperas, car lots, works, bags,	ton.	16.00 @	—
barrels	ton.	18.00 @	—
bulk	ton.	13.00 @	—
Diorthotoluolguanidin, drums	lb.	.48 @	.49
Diphenylguanidin, drums	lb.	.40 @	.41
Ethyl acetate, tanks	gal.	.87 @	—
car lots, drums	gal.	.89 @	—
less car lots, drums	gal.	.92 @	—
bromide, technical, drums	lb.	.50 @	.55
Ethylene dichloride, drums	lb.	.07 @	.10
Ferric chloride, cryst., barrels	lb.	.04½@	.07
Fluorspar, domestic, acid grade, lump, car lots, bulk, works	ton.	39.00 @	—
enameler's, 96 to 98 p.c., bags	ton.	37.50	@40.00
ground, car lots, bulk, works	ton.	43.50 @	—
No. 1 standard ground, works	ton.	32.50 @	—
No. 2 lump, works	ton.	18.00 @	—
washed gravel, 85 and 5, bulk, works	ton.	17.00 @	—
ground, bags, works	ton.	31.00	@31.50
Imported, 85 and 5, ground, bulk	ton.	17.50 @	—
Formaldehyde anilin, drums	lb.	.31 @	.35½
Glauber's salt, domestic, car lots, bags	100 lbs.	1.00 @	—
less car lots, bags	100 lbs.	1.15 @	1.60
barrels	100 lbs.	1.20 @	1.65
imported	100 lbs.	.70 @	.80
anhydrous, domestic	lb.	.03 @	.03½
foreign	lb.	.02½@	.02¾
Iron nitrate, com'l, kegs	lb.	.02¾@	.03
true, kegs	lb.	.09 @	.09½
Lead, acetate, brown, broken, barrels	lb.	.12 @	.12½
white, broken, barrels	lb.	.13½@	.14
crystals, barrels	lb.	.13 @	.13½
granular, barrels	lb.	.13½@	.14
powdered	lb.	.14 @	.14½
arsenate (see Agricultural Insecticides.)			
nitrate, barrels	lb.	.13 @	—
sulphate, barrels, works	lb.	.08¼@	—
Lime, lump, works, barrels	bbl.	1.80 @	2.80
bulk	ton.	8.50 @	—
acetate, bags	100 lbs.	4.00 @	—
Magnesite, calcined, barrels	ton.	50.00	@60.00
Magnesium chloride, flake, domestic, works, barrels	ton.	36.00	@37.00
imported, barrels	ton.	31.75	@35.50
carbonate, technical, bags	lb.	.06 @	.06½
silicofluoride, barrels	lb.	.09¾@	.10¼
Manganese chloride, imported, barrels	lb.	.08 @	.09
dioxide, technical (peroxide), drums	lb.	.04½@	.06
sulphate, works, barrels	lb.	.07¾@	.08½
Methyl chloride, cylinders	lb.	.45 @	.
Nickel chloride, barrels	lb.	.16 @	.19
kegs	lb.	.18 @	.19
oxide, barrels	lb.	.38 @	.40
salts, double, barrels	lb.	.10 @	—
single, bbls.	lb.	.10½@	—
Niter cake, works, bulk	ton.	4.50 @	5.50
Phosphorus oxychloride, cyinderz	lb.	.35 @	.40
red, casks	lb.	.55 @	.60
sesquisulphide, cases		.44 @	—
trichloride, cylinders	lb.	.35 @	—
yellow, casks	lb.	.35 @	.40
Potash bichromate (see Dyestuffs and Tanstuffs.)			
binoxalate, drums	lb.	.14 @	.22
bisulphate, kegs	lb.	.30 @	—
carbonate 98@100 p.c., calcined, imported, shipm't, cks.	lb.	.07¾@	.08¼
96@98 p.c., calcined, imported, shipment, casks	lb.	.06¾@	.07¼
80@85 p.c., calcined, imported, casks	lb.	.05¾@	.06¾
hydrated, imported, shipment, casks	lb.	.06 @	.06½
caustic, 88@92 p.c., domestic, works, casks	lb.	.07¼@	.07¾
imported, casks	lb.	.07¼@	.07¾
flake, 88@92 p.c., domestic, works, casks	100 lbs.	8.05 @	8.30
chlorate, domestic, works, car lots, casks	lb.	.08½@	.07
less than car lots, casks	lb.	.08½@	.09
foreign, car lots, casks	lb.	.07½@	.07¾
chloride, crystals, barrels	lb.	.05¼@	.05½
Potash, chromate, kegs	lb.	.27 @	.28
cyanide, cases	lb.	.55 @	.60
metabisulphite, bbls	lb.	.10 @	.12
nitrate (see saltpeter).			
oxalate, barrels	lb.	.16 @	.20
perchlorate, works, casks	lb.	.11 @	.11½
permanganate, tech., casks	lb.	.15 @	.16
prussiate, red, casks	lb.	.38 @	.40
yellow, casks	lb.	.17½@	.18½
sorts, casks	lb.	.08½@	.09
titanium oxalate, kegs	lb.	.23 @	.25
xanthate, tanks	lb.	.12 @	—
car lots, drums	lb.	.14 @	—
Salt cake, ground, w'k's, bbls.	ton.	21.00	@23.00
bulk	ton.	10.00	@17.00
Saltpeter, crystal, barrels	lb.	.07¼@	.08
granular, barrels	lb.	.06 @	.06¼
powder, barrels	lb.	.07¼@	.07½
Soda, acetate, barrels	lb.	.05½@	.06
ash, dense, 58 p.c., car lots, bags	100 lbs.	1.42½@	—
barrels	100 lbs.	1.60 @	—
less car lots, bags	100 lbs.	2.30 @	2.50
barrels	100 lbs.	2.50 @	2.70
contracts, car lots, works, bags	100 lbs.	1.37½@	—
barrels	100 lbs.	1.55 @	—
bulk, shipment	100 lbs.	1.22½@	—
light, 58 p.c., car lots, bags,	100 lbs.	1.37 @	—
barrels	100 lbs.	1.60 @	
less car lots, bags	100 lbs.	2.04 @	2.19
barrels	100 lbs.	2.29 @	2.44
contracts, car lots, works, bags	100 lbs.	1.32 @	—
barrels	100 lbs.	1.55 @	—
bulk shipment	100 lbs.	1.15 @	—
bicarbonate, car lots, barrels,	100 lbs.	2.25 @	—
kegs	100 lbs.	2.35 @	—
works, barrels	100 lbs.	2.00 @	—
kegs	100 lbs.	2.25 @	—
bifluoride, barrels	lb.	.17½@	.19
bisulphate, works, barrels	ton.	5.00 @	6.00
bulk	ton.	3.50 @	4.50
bisulphite, powdered, works, barrels	100 lbs.	3.75 @	4.25
solution, 35-38 p.c., works, barrels	100 lbs.	1.50 @	1.75
Soda, caustic, 60 p.c., contracts, works, drums	100 lbs.	2.50 @	—
76 p.c., flake, car lots, drums	100 lbs.	3.35 @	—
less car lots, drums	100 lbs.	4.16 @	4.31
contracts, car lots, works, drums	100 lbs.	3.30 @	—
ground, car lots, drums	100 lbs.	3.35 @	—
caustic, 76 p.c., ground, less car lots, drums	100 lbs.	4.16 @	4.31
contracts, car lots, works, drums	100 lbs.	3.30 @	—
solid, car lots, drums	100 lbs.	2.95 @	—
less car lots, drums	100 lbs.	3.76 @	3.91
contracts, car lots, works, drums	100 lbs.	2.90 @	—
export, drums	100 lbs.	2.80 @	3.10
chlorate, seaboard, kegs	lb.	.05¾@	.06
works, kegs	lb.	.06¼@	.06½
foreign, ex dock	lb.	.07 @	—
cyanide, 96@98 p.c., domestic, 100-lb. drums	lb.	.18 @	.19
imported, cases	lb.	.17 @	.18
fluoride, barrels	lb.	.08½@	.10
hydrosulphide, barrels	lb.	.26 @	.28
monohydrate, barrels	100 lbs.	2.60 @	—
works, barrels	100 lbs.	2.30 @	—
naphthionate	lb.	.52 @	.54
nitrate, crude (see Fertilizer Materials.)			
refined, granular, barrels	lb.	.03¾@	.04½
powder, barrels	lb.	.05¾@	.06
nitrite, 96@98 p.c., domestic, barrels	lb.	.07¼@	.08
imported, casks	lb.	.08½@	.08¾
perborate, barrels	lb.	.18 @	—
phosphate, dibasic, barrels	lb.	.03¼@	.03¾
tribasic, barrels	lb.	.039 @	.04½
prussiate, yellow, works, cks.	lb.	.11 @	.12
pyrophosphate, barrels	lb.	.13 @	.24
sal, barrels	100 lbs.	1.15 @	—
works, barrels	100 lbs.	1.00 @	—
silicate, 40 deg., works, drums,	100 lbs.	.70 @	.80



General View of Chattanooga Plant

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MURIATIC ACID SATIN WHITE SULPHURIC ACID AMMONIA NITRIC ACID

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WATERBURY, CONN.

Soda silicate, 40 deg., tanks.... 100 lbs.	.60	@	—
60-deg., works, drums.100 lbs.	1.05	@	—
silicofluoride, barrels.....lb.	.05¼	@	.05½
stannate, drums.....lb.	.39½	@	.41
stearate, barrels.....lb.	.20	&	.29
sulphide, 30 p.c., crystals, barrels, works.....100 lbs.	2.35	@	2.65
foreign .....100 lbs.	2.10	@	2.25
60 p.c., broken, casks.100 lbs.	3.25	@	3.75
foreign .....100 lbs.	3.25	@	3.50
sulphite, crystals, barrels...lb.	.03	@	.03¼
powdered, barrels.....lb.	.06¾	@	.07
sulphocyanide, cases.....lb.	.29	@	.37
tungstate, tech., cryst., kegs.lb.	.65	@	.78
Sulphur chloride, tanks, works.. lb.	.03½	@	.04
drums .....lb.	.05	@	.07
dioxide, anhydrous, works, tanks .....lb.	.04	@	—
car lots, drums.....lb.	.04½	@	—
cylinders .....lb.	.05	@	—
less car lots, cylinders..lb.	.06½	@	.08
crude, car lots, mines, bulk.ton.	18.00	@	19.00
ex vessel, Atlantic ports, bulk ton.	22.00	@	23.00
roll, bags.....100 lbs.	2.25	@	2.70
barrels .....100 lbs.	2.40	@	2.85
flour, commercial, bags.100 lbs.	1.55	@	2.10
barrels .....100 lbs.	1.90	@	2.45
extra fine, bags.....100 lbs.	2.40	@	3.00
superfine, bags.....100 lbs.	2.40	@	2.80
barrels .....100 lbs.	2.55	@	3.10
rubbermakers', bags..... 100 lbs.	2.20	@	2.80
barrels .....100 lbs.	2.55	@	3.10
refined, extra fine, bags.... 100 lbs.	2.80	@	3.35
barrels .....100 lbs.	3.15	@	3.70
heavy, bags.....100 lbs.	2.50	@	3.05
barrels .....100 lbs.	2.85	@	3.40
light, bags.....100 lbs.	2.60	@	3.15
barrels .....100 lbs.	2.95	@	3.50
rubbermakers', bags.100 lbs.	2.60	@	3.15
barrels .....100 lbs.	2.95	@	3.50
Tin .....lb.	.47½	@	—
bichloride, barrels.....lb.	.15	@	—
crystals, barrels.....lb.	.36½	@	—
oxide, barrels.....lb.	.53	@	—
tetrachloride, anhydrous....lb.	.31¼	@	—
Triphenylguanidin, drums....lb.	.67	@	—
Uranium oxide.....lb.	1.50	@	—
Urea, cases.....lb.	.20	@	30
Zinc carbonate, barrels.....lb.	.10	@	.11
chloride, fused, works, drums, lb.	.05¼	@	.06
granular, domestic, works, drums .....lb.	.06¼	@	.06⅝
solution, works, drums....lb.	.02¾	@	.03¼
cyanide, drums.....lb.	.40	@	.46
dust, car lots, barrels.....lb.	.08¾	@	.09
barrels .....lb.	.09¾	@	.11
fluoride, barrels.....lb.	.15	@	.20
sulphate, barrels.....lb.	.03½	@	.03¾
sulphide, barrels.....lb.	.30	@	.32
Zinc-ammonium chloride, cks.lb.	.05¼	@	—
Zirconium oxide, natural, kegs.lb.	.02½	@	.03
pure, kegs.....lb.	.45	@	.50
semi-refined, kegs.....lb.	.08	@	.10

Acids

Acetic, com'l., 28 p.c., barrels. 100 lbs.	3.63	@	3.88
carboys .....100 lbs.	4.13	@	4.38
30 p.c., barrels.....100 lbs.	4.92	@	5.17
carboys .....100 lbs.	5.42	@	5.67
56 p.c., barrels.....100 lbs.	6.85	@	7.10
carboys .....100 lbs.	7.35	@	7.60
60 p.c., barrels.....100 lbs.	7.30	@	7.55
carboys .....100 lbs.	7.80	@	8.05
70 p.c., barrels.....100 lbs.	8.44	@	8.69
carboys .....100 lbs.	8.94	@	9.19
80 p.c., barrels.....100 lbs.	9.62	@	9.87
carboys .....100 lbs.	10.12	@	10.37
84 p.c., barrels.....100 lbs.	10.18	@	10.33
carboys .....100 lbs.	10.58	@	10.83
glacial, U.S.P., 99 p.c., barrels .....100 lbs.	12.79	@	13.04
carboys .....100 lbs.	13.30	@	13.55
pure, 60 p.c., barrels...100 lbs.	8.65	@	8.90
carboys .....100 lbs.	9.15	@	9.40
80 p.c., barrels.....100 lbs.	11.41	@	11.66
carboys .....100 lbs.	11.91	@	12.16
redistilled, 28 p.c., barrels.... 100 lbs.	3.91	@	4.16
carboys .....100 lbs.	4.41	@	4.66
56 p.c., barrels.....100 lbs.	7.40	@	7.65
carboys .....100 lbs.	7.90	@	8.15
60 p.c., barrels.....100 lbs.	7.90	@	8.15
carboys .....100 lbs.	8.40	@	8.65
70 p.c., barrels.....100 lbs.	9.14	@	9.39
carboys .....100 lbs.	9.64	@	9.89
80 p.c., barrels.....100 lbs.	10.41	@	10.66
carboys .....100 lbs.	10.91	@	11.16
Acetic anhydride, drums.....lb.	.28	@	.29
Battery, carboys.....100 lbs.	1.60	@	3.00
Benzoic (see Coaltar Products).			
Boric, 99½ p.c., car lots, sacks. lb.	.06½	@	.07
car lots, barrels.....lb.	.07½	@	.08¼
5 tons, sacks.....lb.	.08¼	@	—
barrels .....lb.	.08½	@	—
less than 5 tons, sacks...lb.	.07¾	@	.08½
barrels .....lb.	.08	@	.08¾
kegs .....lb.	.08½	@	—
Butyric, 100 p.c. basis, cbys..lb.	.85	@	.90
Camphoric, cans.....lb.	4.85	@	—
Carbolic (see Coaltar Products-phenol).			
Chromic, 99 p.c., drums extra..lb.	.20	@	.21
Cinnamic, refined, bottles....lb.	3.25	@	3.50
Citric, domestic, crystals, barrels .....lb.	.46	@	—
powder, barrels.....lb.	.47	@	—
imported, kegs.....lb.	.59	@	.60
Cresylic (see Coaltar Products).			
Formic, 90 p.c., imported, carboys .....lb.	.11	@	.12
Gallic, technical, barrels....lb.	.50	@	.55
U.S.P., barrels.....lb.	.74	@	—
Hydriodic, U.S.P., 10 p.c. solution, carboys.....lb.	.67	@	—
Hydrobromic, U.S.P., 10 p.c. solution, carboys.....lb.	.19	@	—
Hydrochloric (see muriatic).			
Hydrocyanic, works, cylinders.lb.	.80	@	1.00

ACETIC ACID

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Tartaric Acid

U. S. P.

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Hydrofluoric, 30 p.c., barrels	lb.	.06 @	.06½
lead carboys	lb.	.08 @	.08½
48 p.c., lead carboys	lb.	.10 @	.10½
52 p.c., lead carboys	lb.	.11 @	.11½
60 p.c., lead carboys	lb.	.13 @	.13½
Hydrofluosilicic, 35 p.c., barrels,	lb.	.11 @	.12
Hypophosphorus, 30 p.c., U.S.P., demijohns	lb.	.35 @	—
Lactic, 22 p.c., dark, barrels	lb.	.04¾@	.05¼
light, barrels	lb.	.05¾@	.06¼
44 p.c., dark, barrels	lb.	.10 @	.10½
light, refined, barrels	lb.	.12 @	.12½
U.S.P., X, carboys	lb.	.62 @	.64
Malic, powd., kegs	lb.	.48 @	.60
Mixed, tanks nitric unit	lb.	.07 @	.07¼
sulphuric unit	lb.	.008 @	.01
Monochloracetic, technical, barrels	lb.	.18 @	.21
99 p.c., barrels	lb.	.25 @	.27
Muriatic, 18 deg., tanks, works, 100 lbs.	1.00	@	—
carboys, car lots, works 100 lbs.	1.35	@	—
truckloads, del'd 100 lbs.	1.60	@	—
20 deg., tanks, works 100 lbs.	1.10	@	—
carboys, car lots, works 100 lbs.	1.45	@	—
truckloads, del'd 100 lbs.	1.70	@	—
22 deg., tanks, works 100 lbs.	1.60	@	—
carboys, car lots, works 100 lbs.	1.95	@	—
truckloads, del'd 100 lbs.	2.20	@	—
chemically pure, carboys	lb.	.07	@ —
5-pt. bottles	lb.	.09	@ —
Nitric, 36 deg., carboys, car lots, works 100 lbs.	5.00	@	—
carboys, truck lots, del'd 100 lbs.	5.25	@	—
38 deg., carboys, car lots, works 100 lbs.	5.50	@	—
truckloads, del'd 100 lbs.	5.75	@	—
40 deg., carboys, car lots, works 100 lbs.	6.00	@	—
40 deg., carboys, truck loads, del'd 100 lbs.	6.25	@	—
100 lbs.	6.50	@	—
42 deg., carboys, car lots, works, truckloads, del'd 100 lbs.	6.75	@	—
chemically pure, carboys	lb.	.12	@ —
5-pt. bottles	lb.	.14	@ —
Oleic (see Miscellaneous Oils—red oil).			
Oleum (see fuming sulphuric).			
Oxalic, domestic, barrels	lb.	.11	@ .11¼
imported, barrels	lb.	.11½@	.12½
Picric (see Coaltar Products).			
Phosphoric, 50 p.c., technical, carboys, barrels	lb.	.08½@	.09
85 p.c., syrupy, U.S.P. (spec. grav. 1.710), carboys	lb.	.14	@ .15
89 p.c. (spec. grav. 1.750), carboys	lb.	.15	@ .16
Phthalic anhydride (see Coaltar Products).			
Pyrogallic, crystals, cans	lb.	1.30	@ 1.40
resublimed, cans	lb.	1.60	@ 1.70
Stearic (see Miscellaneous Oils).			
Salicylic (see Coaltar Products).			
Sulphuric, 60 deg., tanks, works,	ton.	11.00	@ —
66 deg., tanks, works	ton.	15.50	@ —
carboys, car lots, works 100 lbs.	1.35	@	—
truckloads, del'd 100 lbs.	1.60	@	—
98 percent, tanks, works	ton.	16.50	@ —
chemically pure, carboys	lb.	.07	@ —
5-pt. bottles	lb.	.09	@ —
fuming (oleum), 20 percent, tanks, works	ton.	18.50	@ —
Tannic, technical, barrels	lb.	.85	@ .40
U.S.P., fluffy, barrels	lb.	.87	@ .93
Tartaric, U.S.P., domestic, crystals or powder, barrels	lb.	.38	@ —
fiber, drums	lb.	.39	@ —
kegs	lb.	.38½@	—
imported, crystals, kegs	lb.	.38	@ —
Trichloracetic, bottles	lb.	2.75	@ —
kegs	lb.	2.00	@ —
Tungstic, barrels	lb.	1.00	@ 1.25

Insecticides, Fungicides

Arsenic, white, powder (see above).			
Bordeaux mixture, paste, bbls.	lb.	.10½@	.11¼
powder, barrels	lb.	.10½@	.11½
Calcium arsenate, drums	lb.	.06	@ .07
Carbon bisulphide (see above).			
Copper carbonate, barrels	lb.	.17	@ .17½
Formaldehyde (see Drugs and Fine Chemicals).			
Lead arsenate, powder, drums	lb.	.13½@	.15
Lime-sulphur solution, barrels,	gal.	.15	@ .16
Nicotine, 95 p.c., tins	lb.	3.25	@ —
sulphate, 10-lb. tins	tin	9.85	@ —
Paradichlorobenzene, kegs	lb.	.17	@ .25
Paris green, bulk	lb.	.23	@ .35
Soda, arsenate, drums	lb.	.18	@ .19
arsenite, drums	gal.	1.00	@ 1.50

Wrench Is Best Golfer at Chemical Salesmen's Meet

Thirty golfing members of chemical sales forces in this city and vicinity competed for about half as many prizes on September 18 at the fall tournament of the Salesmen's Association of the American Chemical Industry. The shooting took place on the links of the Lenox Hills Golf Club, Farmingdale, L. I.

Prizes were awarded on the basis of gross scores. Joseph Wrench, of the Industrial Chemical Sales Company, won the first prize with a score of 80. George Uhe, of George Uhe, Inc., and Robert Quinn, of Mathieson Alkali Works, tied for second place with scores of 88. F. J. Grant, of the Noil Chemical & Color Company, and V. E. Williams, of Monsanto Chemical Works, were next in line. The prize for the highest score was awarded for a total of 155 strokes, made by F. P. Sommers, of the Noil Chemical & Color Company.

A dinner at the Lenox Hills Club provided further entertainment for the golfers.

S. L. Redman will speak on "Tools of the Chemist" at the monthly meeting of the Chicago section of the American Chemical Society, September 28.

A. A. Ollinger, of the chemical sales and insecticide department of the Grasselli Chemical Company, has resigned. He will associate himself with his brother, an attorney in Brooklyn.

German exports of ammonium nitrate are said to show a material decline under the influence of changes in the market in the United States. This article is grouped with lead nitrate in German statistical reports. Total exports were 13,970 tons in 1927, against 21,660 in 1925. Exports to the United States dropped from 5,103 tons to 2,131 tons in the two years.

Electrochemists Meet

(Continued from page 17)

described by Kurt Illig, of the research laboratories of Siemens-Halske A. G., Berlin. The method of Stock and Goldschmidt, developed by the Beryllium Institute, is being used in the production of commercial quantities (150-gram masses) of the metal. The Berlin concern expects in six months to be producing about 100 kilograms of beryllium a month at a price of about $85 per kilogram. Utilization of beryllium in the making of alloys was discussed by Mr. Illig.

Making Barium Aluminate

A process of preparing barium aluminate, without the use of an electric furnace, at a price which enables its use for the purification of water was described by E. F. Linhorst and Herman Schlundt, of the University of Missouri. This process consists in heating barium carbonate with finely powdered aluminum in the proportion of 197 to 54, to a "hot spot" of 400° C. from which a highly exothermic reaction sets in. The shortcoming of the process is that the aluminum powder must be very fine, and such fine powder is not available at a cost adapted to commercial operations.

Mr. De K. Thompson and W. G. Armstrong, of the Massachusetts Institute of Technology, presented a paper describing the measuring of the vapor pressure of barium oxide between 1,280° and 1,470° C. The Wartenberg method was employed. Mr. Thompson also reported some results of experiments in the measuring of the equilibrium pressures of the reaction of the formation of barium carbide from barium oxide and carbon. At three different temperatures it was found that the three substances for a single solid solution. Consistent results were obtained at 1,141° C. and 1,295° C. At 1,375° C., however, dissociation of the carbide, or some other disturbing factor, prevented satisfactory measurements.

Electrochemistry of Proteins

Friday's proceedings had a particular scientific flavor. The first paper was one by D. M. Greenberg, of the University of California Medical School, on "Some Aspects of the Electrochemistry of the Proteins." In this it was shown that transport numbers for casein and the A, B, and C fibrins dissolved in 0.1 N acid or alkali indicate that definite compounds are formed between the acid or base and the protein. The electrode deposit is found to be (1) proportional to the current, and (2) inversely proportional to amount of acid or base combined with the protein, or to the charge carried by the protein. The transport numbers vary inversely as the mobility of the cation. These results indicate a salt-like behavior rather than the current colloidal theory of protein behavior. Complex formation between the protein and the hydroxides of the alkaline earth series are indicated.

Cathodic Halogen

Investigations of the electrolytic products of certain halogenyl compounds in various organic solvents were discussed by R. H. Clark and R. H. Ball, of the University of British Columbia. Measurements of the oxidizing power of bromylsuccinimide, iodylsuccinimide, and bromylacetamide gave support to the belief that the halogens are positive. On electrolysis, using silver electrodes, 1.5 cm. apart, the halogen deposited on the anode in all solvents used, with the exception of acetonitrile. In the latter solvent, the halogen from freshly purified bromylsuccinimide deposited wholly on the cathode. The halogen from iodylsuccinimide and bromylacetamide in the same solvent repeatedly deposited on both electrodes.

Conductivity of Organic Solvents

Measurements of the conductivity of a number of the more common organic solvents, pure compounds and mixtures were reported by D. B. Keyes, Sherlock Swann, Jr., and H. W. Hoerr, of the University of Illinois. The direct current method of conductivity measurement was used, due to the fact that the Kohlrausch method was unsatisfactory on account of the low conductivity of some of the materials examined. The method described was said to be satisfactory for determinations of conductivities of commercial organic liquids. The following results were reported:—

	Conductivity (reciprocal Int. ohm.-cm.) × 10^{-12} at 25° C.
Commercial amyl alcohol	360,000
Amyl acetate	1,600
Isoamyl alcohol	8,000
Ethyleneglycol monoethyl ether	1,800,000
Ethyleneglycol monoethyl ether acetate	47,000
Toluol	49
Normal butyl alcohol	2,900,000
Tertiary butyl alcohol	290,000
Ethyl lactate	1,000,000
Diethyl carbonate	910
Ethyl acetate, 85 percent	320,000
Ethyl acetate, 99 to 100 percent	3,000
Normal butyl acetate, 85 percent	16,000

Voltaic Hydrogen Generator

A hydrogen generator was described by W. C. Gardiner and G. A. Hulett, of Princeton University, which is applicable for use when a slow, steady evolution of pure hydrogen is desired for a long time. The generator consists of an amalgamated zinc anode and a platinum black or nickel cathode in an electrolyte of sodium hydroxide containing a little barium hydroxide. The generator operates at full capacity on short-circuit, but may be controlled by introducing a variable resistance in the circuit. It is designed to eliminate dead space.

No impurities are introduced into the hydrogen when the generator is allowed to run on a short-circuit. The generator has been shown to give off oxygen-free hydrogen.

Absorbed Gas and Contact Resistance of Carbon

R. H. Wright and M. J. Marshall, of the University of British Columbia, reported investigations of the effect of adsorbed gas on the contact resistance of carbon, in the light of the hypothesis that adsorbed gas films on the carbon surface may be responsible for part of this contact resistance. The contact resistance of carbon filaments was measured, both in air and after outgassing at 1,700° C. in a high vacuum. Curves were obtained showing the variation of resistance with pressure under these conditions. For contacts too light to be measured, much lower resistances could be obtained after outgassing. For intermediate contact pressures outgassing reduced the resistance to about two-thirds of its original value. Heavy contacts showed about the same resistance for the two conditions. It was shown that this is in accordance with the theory proposed.

Colin G. Fink
Secretary, A. E. S.

H. C. Kremers and D. C. Thomas, of the University of Illinois, described the use of misch metal as an electrolytic rectifier. This was bound to work well, particularly with an electrolytic composed of an aqueous solution of sodium hydroxide and trisodium phosphate.

Some useful suggestions for the proper care of the unsaturated form of standard cell in commercial use were given in a paper on "Maintenance of the Volt," by G. W. Vinal, of the Bureau of Standards.

Corrosion in Tin Cans

In a paper on "Corrosion in the Tin Can," R. H. Lueck and H. T. Blair, of the American Can Company, showed that, in acid solutions free from appreciable concentrations of oxidizing substance, the usual electrochemical relations of iron and tin are reversed, tin assuming an anodic relation to iron. The polarity reversal in the iron-tin cell is due to the large value for the hydrogen overvoltage of tin as compared with that of iron. No reversal occurs if the accumulation of hydrogen on the initially cathodic tin surface is prevented. A hypothesis was suggested to explain the perforating character of certain red fruits, as opposed to many uncolored fruits of equal hydrogen ion concentration which do not perforate.

Electrodeposition of Telurium

A technical session on electrodeposition was held Saturday forenoon, Dr. Duncan MacRae presiding. The first paper was one on "Electrodepositin of Tellurium," by F. C. Mathers and H. L. Turner, of Indiana University. This set out the fact that tellurium can be electrodeposited in a firm, smooth condition upon lead cathodes from solution of tellurium dioxide in mixtures of hydrofluoric and sulphuric acid. Solutions of tellurium dioxide in nitric acid or in hydrochloric acid give much less satisfactory deposits. All tellurium deposits are brittle, consequently they offer little encouragement for use in commercial electroplating. The deposited tellurium is free from selenium, thus giving a method of refining metallic tellurium. The selenium remains as a slime on the anode.

Measurements of the anodic and cathodic polarizations and restivities of various nickel-plating solutions in a Haring cell were reported by R. L. Dorrance and W. C. Gardiner, of Queen's University.

Copper-Graphite Deposition

It is perfectly feasible to codeposit graphite with copper in large enough quantities (16 percent) to act as a lubricant, according to a report by Colin G. Fink and J. D. Prince, of Columbia University. The usefulness of this possibility in the preparation of a self-lubricating bearing alloy was pointed out. The deposits were brittle, but this had been remedied by annealing. No actual working tests had been made, as further experimentation in codeposition had seemed advisable.

Duriron Anode for Gold-Cyanide

M. De K. Thompson, of the Massachusetts Institute of Technology, said that duriron had been found to withstand corrosion well in a gold-cyanide solution, and would make a better anode than lead in the electrolytic extraction of gold. Duriron had been studied also with respect to its corrosion in solutions of chloride, chlorate, hydroxide, chromium sulphate, and manganate, but was not found suitable for use in any of these.

Nickel Mirrors

Colin G. Fink and W. G. King, jr., of Columbia University, presented a paper in which it was stated that nickel carbonyl, decomposed in contact with heated glass surfaces, produced perfect mirror deposits. Foreign gases, such as air, must be absent, as otherwise dark spots develop in the mirror. Best results were obtained with glass temperatures at 180° to 200° C. Other materials besides glass were thus coated with nickel. The heat reflectivity of the nickel mirror is almost equal to that of a silver mirror. The deposit has a high electrical conductivity, adheres tenaciously and is tough and resistant. The deposit may serve as a foundation for the electrodeposition thereon of chromium, copper and other metals.

Determination of Hydrogen Peroxide

A new electrochemical method for the titration of hydrogen peroxide and associated peracids in mixtures was described by A. Rius, of the Industrial School of Zaragoza, Spain. It uses a solution of sodium sulphite as standard. The following conclusions were reported:—

1. In mixtures of $H_2S_2O_8$, H_2SO_5 and H_2O_2, the new electrometric titration method, using Na_2SO_3, is dependable for total H_2SO_5 and H_2O_2.
2. H_2O_2 is determined in presence of H_2SO_5 by the author's modification of Birkenbach's method of titration with $KMnO_4$.
3. An analogous method can be employed for monoperphosphoric acid.
4. In mixtures of $H_2S_2O_8$, H_2SO_5 and H_2O_2 the total oxidizing value may be determined by well-known analytical methods and, after subtracting the equivalents of H_2O_2 and H_2SO_5 as determined above, the $H_2S_2O_8$ may be calculated.
5. Electrometric titration of H_2SO_5 by means of $FeSO_4$ in the presence of $MnSO_4$ is only accurate in the absence of H_2O_2. The presence of much $H_2S_2O_8$ interferes.
6. The detection of small amounts of H_2O_2 by means of e. m. f. change in a *N* calomel + platinum-H_2SO_5 cell is very sensitive.

Hypochlorite Titration

Mr. Rius and V. Arnal, of the Saragossa Industrial School, described a new electrochemical method, using tenth-normal sodium hydroxide, for the titration of hypochlorite and hypochlorite-carbonate mixtures. The results indicated that neutralization occurs in a one-stage reaction. Since the potential of a chlorine electrode varies with the pH of the solution, hypochlorite, alkali carbonate, and free hydroxide can be determined by a single titration. In the presence of sodium hydroxide and sodium carbonate in solution, three distinct inflection points on the titration curve were obtained corresponding to NaOH + ½ Na_2CO_3; NaOH + Na CO_3, and NaClO, respectively.

The following illustration of the commercial application of the described method to discolored lyes was given:—

A direct titration of 25 cc. of such a lye was made in our experimental apparatus with an H_2O_2-H_2SO_4 solution. The H_2O_2 was 2.460 *N*, and the H_2SO_4 0.9394 *N*. The first inflection point, corresponding to hypochlorite, appeared at 10.95 cc. That is equal to (10.95 x 2.460 x 35.46)/25 = 38.21 grams per liter of free chlorine. Penot's method, using arsenite, gave 38.42 grams per liter. The inflection points for NaOH + ½ Na_2CO_3 and NaOH + Na_2CO_3 appeared at 20.05 cc. and 30.90 cc., respectively. The carbonate equals 2(30.90 − 20.05) = 21.70 cc., and the NaOH equals 30.90 − 21.70 = 9.20 cc. of the sulphuric acid. These are equivalent to 43.19 g./L. of sodium carbonate, and 13.83 g./L. of NaOH. The phenolphthalein titration, after removing the hypochlorite, gave 43.12 and 13.91 g./L. for the carbonate and caustic soda, respectively.

Aside from the visits to interesting manufacturing plants, the electrochemists were variously entertained. Thursday evening they were given a dinner by the Charleston Chamber of Commerce, followed by a smoker. Friday evening, after they had Dutch treated themselves to dinner, they took a bus ride to the Edgewood Country Club, where an old-fashioned Southern entertainment, with refreshments, was given.

Ladies attending the meeting were entertained at luncheon, tea and bridge and taken on sightseeing trips.

Newman Succeeds Byers On Cooper Union Staff

Dr. Albert B. Newman, a research chemical engineer for the General Chemical Company, this city, has been appointed professor of chemical engineering in charge of the department at Cooper Union. Dr. Newman succeeds Dr. Horace G. Byers, who resigned to take a position with the United States Bureau of Soils at Washington.

Dr. Newman is a member of the American Chemical Society, American Institute of Chemical Engineers, Sigma Xi, Phi Lambda Upsilon, Iota Alpha, and Sigma Chi. He was born May 3, 1888, and received his B. A. degree in 1910, and the degree of bachelor in chemical engineering in 1911 from the University of Michigan. From 1911 to 1912 he was assistant chemist for the Corn Products Refining Company, Edgewater, N. J. He then became instructor in chemistry at Pennsylvania State College.

From 1913 to 1915 Dr. Newman was foreman in chemical manufacturing at the National Zinc Company, Kansas City. He held the position of superintendent in chemical manufacturing at the American Zinc & Chemical Company, Langeloth, Pa., from 1915 to 1917. The following year he was appointed works manager in the East St. Louis plant of the Monsanto Chemical Works. He was general manager of the Thermo Chemical Company, St. Louis, from 1920 to 1925, when it was voluntarily dissolved. He has been connected with the General Chemical Company since September, 1927.

Dr. Newman received an M. S. degree in 1926, and a Ph. D. degree in 1928 from the University of Michigan.

Dr. Horace G. Byers, for nine years professor of chemistry at Cooper Union, goes to the Department of Agriculture October 1 to take the position of chief of the section of soil chemistry and physics in the Bureau of Chemistry and Soils.

Dr. Byers served as a captain in the ordnance corps in the World War, after which he spent a year in the bureau of chemistry, leaving in 1919 to go to the Cooper Union. The post he is to fill has been vacant for several years, the heads of the soil physics and soil chemistry sections reporting directly to Dr. A. G. McCall, chief of the entire division of soil investigations.

Tartaric acid production in Greece during 1927 amounted to 1,500 tons.

National Petroleum Association Meeting

(Continued from page 43)

its cost will compare very favorably with the percolation type of filter even though no attempt is made to restore the powdered clay at all. Operations are more fully under your control, claims are also being made in restoring the fine clays to approximately the original efficiency by special designed kilns which should make this of particular interest to all who are concerned with the cost of decolorizing lubricating oils.

Trustees Elected

The report of the nominating committee, John P. Flynn, chairman, naming fifteen trustees as follows, was adopted without dissent:—

Fred G. Clark, Sheldon Clark, G. C. Davison, Frank B. Fretter, Howard H. Greene, T. J. Hilliard, O. P. Keeney, H. A. Logan, E. M. Lyons, A. W. Scott, P. S. Tarbox, R. A. Wotowitch, W. T. Holliday, N. H. Weber and Earle M. Craig.

The three latter are the added members of the board of trustees, the first twelve being members of last year's board.

The first session was then adjourned.

Co-operative Fuel Saving

The morning of September 20 was devoted to a group meeting of the association's Department of Manufacture, which was attended by a representative of practically every member company. P. S. Tarbox, trustee in charge of the department, presided and the first subject discussed was the co-operative combustion engineering program.

Mr. Tarbox outlined the work done by Herbert A. Ross, combustion engineer for the fifteen companies in the Warren district, which had subscribed to the program for the three years ended November 1, 1928. He said that most of these firms will continue the work during the coming year and pointed to a total saving in fuel of more than $400,000 as a result of the suggestions made by Mr. Ross at the various plants.

Mr. Ross also spoke briefly on his work.

The next subject was that of the possibilities of co-operative research and this brought forth a wide variety of opinions as to its feasibility, desirability, and as to whether the research need was pure research or research on the definite problems of Eastern oil refiners. It was finally voted as the sense of the meeting that some program of research was desirable and that the trustees be asked to work out a practical program along the lines of the discussion.

G. C. Davison led the symposium. He told of the present state of the literature on petroleum and particularly refining, saying that the data was scattered and difficult to get at. He said the pure science end of the chemistry of refining had been neglected in the pressing need for all the energies of those interested to be applied to the defnite problems cropping up day by day. He suggested that pressure brought to bear by members on their representatives and senators might result in increased appropriations for this research by the United States Bureau of Mines.

Fayette B. Dow, general counsel for the association, stated that the Bureau of Mines was doing what it could with limited appropriations. He doubted that members of Congress could or would do much to increase appropriations in view of the present economy program at Washington and the system by which the Director of the Budget has almost the final say in department appropriations. He suggested that possibilities lay in the association providing funds for use by the Bureau of Mines in refining research as one way to get the work done.

O. P. Keeney urged the appointment of a committee or of a trustee to work out a program for the selection of research problems and plans for getting the research under way by the most feasible method.

Howard H. Greene emphasized the crying need for research along the lines of the definite problems with which Eastern refiners are faced, such as those of the filter house and the steamer butts losses.

L. C. Jamieson pointed out the possibility of making use of the laboratories of Dr. Leslie and Mr. Smith at Oil City as one solution.

Harry Lewis said that one of the first approaches of solution of the problems was a compilation of the most important problems now facing the industry.

G. D. Brandt told briefly of the methods pursued by Henry L. Doherty in getting its research problems on the road to solution.

Horace L. Lohnes, assistant to Mr. Dow, told of the work of the American Library Association and United States Bureau of Mines are doing toward improving the bibliography of petroleum.

The morning session was concluded with the showing of slides by G. D. Brandt, illustrative of his paper on "Pipe Stills," read the previous day.

Officers Elected

Announcement of the election by trustees of the following officers was made at the opening of the session Thursday afternoon:—President, E. M. Lyons, Tiona Refining Company, Philadelphia (re-elected); first vice-president, P. S Tarbox, Independent Refining Company, Oil City (re-elected); second vice-president, N. H. Weber, Pure Oil Company, Chicago; treasurer, G. B. Hunter, Emlenton Refining Company, Emlenton, Pa. (re-elected); recording secretary, Herbert G. Eaton, Superior Oil Works, Warren, Pa. (re-elected); assistant recording secretary, E. W. Smiley, Superior Oil Works, Warren. This latter is a new office created to give legal sanction to the duties fulfilled by Mr. Smiley for several years.

Fayette B. Dow, general counsel, was reappointed by the trustees.

Burning History

An able address on "Burning History" was given by Houston Dunn, general manager of the National Petroleum Mutual Fire Insurance Company. After a brief survey of famous fires and the origin of fire insurance the paper continued in part as follows:—

As late as fifteen years ago the explosive qualities of gasoline were much more in the public mind than they are today. It would seem wise to revive a campaign to acquaint the people with the dangers connected with gasoline, and this could be done more intelligently and with better results by the petroleum industry than if inaugurated by other agencies.

It seems a strange thing—but nevertheless true—scarcely a day passes that some motorist does not light a match to investigate the contents of the gas tank, with resultant injury or death. Rules not enforced are worse than no rules at all. The most inattentive observer will note again and again automobiles receiving gasoline at the filling stations while the motor is still running. It is common practice for a purchaser to stand beside the machine to see that he receives proper quantity of gas and to light his cigarette coincident with the removal of the nozzle from his gasoline tank.

Herbert G. Eaton
Recording Secretary

At many distributing stations it is a practice to fill trucks inside of buildings or sheds. Numerous fires and loss of life have resulted and the practice is one which deserves the most widespread condemnation. Fortunately, the majority of those to whose attention the danger of this practice has been called have welcomed the suggestions of changes and abandoned the procedure by tearing out the sides of the shed and leaving nothing but a roof covering. Recalcitrant owners, however, should be dealt with by the industry itself because the resulting catastrophe reverts to the hardship of the industry at large. One corporation operating some six or eight bulk plants had one entirely wiped out with the loss of life directly from the cause referred to, but refused to abandon the practice at the remaining properties on the ground that the first fire was a coincidence and unlikely to occur again.

It seems as if some peculiar change has crept into the business which cannot be defined. A few years ago the theory existed that a property consisting of brick warehouse and adjacent tanks was not subject to total destruction. In the past two years, however, this theory seems to have been totally upset and numerous properties of the character described have been entirely wiped out. In some instances the fires have originated in the tanks and others in the warehouse. Whether this is due to a basic change in the nature of the commodity handled must be left to those who make it and the chemists who analyze it. The fact remains that, notwithstanding all the progress in modern fire-fighting devices, the general percentage of destruction of property has materially increased.

Fire Marshals

It will be interesting to those present to receive the expression that the Fire Marshals' Association appears to have reduced the number of fires around refineries which previously occurred from carelessness. A continuation of the fire marshal's duties, with increased authority, is highly recommended. The owners of those properties who likewise maintain distributing and filling stations should have some modified form of regular inspection and a strict enforcement of the fire rules would bring about material improvement there.

The National Petroleum Association should apply its expert knowledge, not only to overcoming and preventing fires within its industry, but likewise give such information to insurance authorities. The manufacturing processes within the industry have changed and are so rapidly changing that insurance companies cannot pretend to keep step with them.

Fire Marshals' Association

A paper on "Past, Present and Future of the Fire and Safety Marshals" was read by James H. Herbert, president of the Fire and Safety Marshalls' Association of the organization.

Mr. Herbert gave a most interesting survey of the work of his organization with its frequent group meetings at the various refineries and told of the reduction in fire and safety hazards effected through the meetings. He urged the revival of the two groups, which have been inactive the past year, and spoke for the formation of new groups of refineries.

Price and Profit

"Some Price and Profit Relationships" were presented in a paper by John G. Gill, Atlantic Refining Company. He said in part:—

Since 1921 the trend of wholesale prices of petroleum products collectively has been downward at the rate of approximately 5 percent per annum. Products that cost 8.5 cents per gallon in 1921 cost about 6.5 cents in 1926 and less than 6.3 cents in 1927.

The price of certain products, notably the price of gasoline, has declined to a much greater extent than the decline of the group. The average wholesale price of gasoline in 1921 was 17.1 cents per gallon, compared to 11.47 cents per gallon in 1926 and 7.99 cents per gallon in 1927, giving rise to a price trend downward at the rate of nearly 10 percent per annum.

Each year the volume of products manufactured by the industry has been approximately 10 percent greater than the volume of the year before, but the refinery value of the products has increased at a rate of only 5 percent per annum. For gasoline, the annual increase in volume manufactured has been a little more than 13 percent, while the value of the gasoline production has each year been but a little more than 6 percent greater than the year before.

The rewards to the oil industry for its post-war accomplishments have not been commensurate to the benefits it has provided; whereas, in the eight years prior to 1921 a group of companies whose investments probably represent more than 40 percent of the total of the industry, earned profits of 16 percent on their net worth, they earned but slightly more than 7 percent in the last seven years.

Of the profits of this group prior to 1921, amounting to $1,895,000,000, only $753,000, or 37 percent, was paid in dividends; presumably, the other 63 percent was returned to the business and has been instrumental in providing relatively cheap petroleum products. Since 1921 of the $2,123,000,000 profits earned by this group only $1,229,000,000, or 57 percent, have been paid in dividends. It is significant that with the lessened profits of the recent period a lessened proportion could be returned for improvement and expansion. In the fifteen-year period from 1913 to 1927, inclusive, this substantial group of companies earned on their net worth 9.98 percent, of which less than 49 percent was distributed as cash dividends.

A Reasonable Return

What constitutes a reasonable return on investment is a moot question. Certainly, a question whose answer depends on the conditions under which the investments operate. For the oil industry the years 1919, 1925 and 1926, during which net earnings for the industry as judged by the group, were 10.7 percent, 10.8 percent, and 10.1 percent, respectively on net worth, appear to be fairly normal or average years. Earnings in these years approximate the fifteen-year average of 9.98 percent.

Prices throughout those years, particularly in the first and last named, were much more nearly stable than in other years; production, except of products in the latter part of 1926, tended to keep pace with demand.

During the last decade the net worth of the industry has increased at the average rate of nearly 5 percent per annum. The net worth of $6,420,000,000 in 1919 had grown to about $11,000,000,000 in 1927. The statistical relationships between the industry's net worth, net profits and refinery value of its products indicate that the average profit to the industry requires that the value of the products at refineries shall increase at the same rate as the net worth increases; that a return of 10 percent on the net worth requires that the wholesale value of the products shall be approximately 25 percent of the value of the net worth. Last year the refinery value of products was approximately $2,145,000,000, or about 10 percent of the total net worth. The rate of return was correspondingly below the average and stood at 4.9 percent.

Profits in 1928

What profits will be earned in 1928 is still problematical. At the first six months rate of values of refinery production the total for 1928 would approximate $2,165,000,000, a value slightly greater than that of 1927, but which, when spread over the industry's increased investments, would yield in all probability a lesser return, possibly about 4½ percent. Fortunately for the treasuries of the industry, prices of products continued to advance after the midyear, making possible the recovery of somewhat larger profits.

In the first eight months of 1928 the total value of refinery sales (practically equal to the value of refinery production at current prices) was $1,565,000,000. With normal production and sales expectations for the last four months of the year, and assuming that prices would continue at their September 13 level, additional gross income on refinery values to the extent of $885,000,000 would be realized, a total of $2,450,000,000. Should these conditions prevail, the profits for the industry as a whole in 1928 would probably average not far from 8 percent on net worth.

For profits of the magnitude of those earned in the years 1919, 1925 and 1926 the refinery value of production this year should approach $2,875,000,000. A return approximating 9 percent would require a refinery value of production of $2,635,000,000. To what extent prices are below those necessary to realize this "below average" modest return in 1928 is illustrated in table III, which shows a deficiency of $185,000,000 between the $2,635,000,000 needed and the $2,450,000,000 now in sight. Table III shows also the proportion of this deficiency which should be carried by each of the major products of refineries, and the product price deficiency in cents per gallon.

It has been suggested that the additional income necessary to provide a fair profit this year might come from increases in product prices. There are, of course, other ways in which the profit requirements might be fulfilled. First of all, and always open for consideration, is the reduction of operating expenses. Much has been accomplished along this line, indeed so much in the last few years that by the "Law of Diminishing Returns" there is but little hope that any substantial part of the present apparent deficiency could be realized by additional reductions in operating expenses.

Constructive Marketing

A paper on "Constructive Marketing," by Norman M. Day, Pennzoil Company of California, was read by Charles Suhr, president of the Pennzoil Company. The paper gave an illuminating sketch of the marketing situation in California, with particular reference to lubricating oils. Mr. Day urged that if the money lost in senseless price cutting were applied to educational advertising, with a view to getting consumers to change their crankcase oil oftener, the whole industry would be in better shape.

Oil Heating the Home

"What Oil Heat Means to the American Home and to the Oil Industry," was discussed in a paper by E. E. Newson, assistant director of the Oil Heating Institute, New York. The paper follows in part:—

There is spreading over the country with incredible speed the use of another commodity the potentialities of which for human freedom and relief from care and dirt and drudgery are at least comparable to those of the automobile. And whether it consciously recognizes it or not, the petroleum industry is destined to play an influential part in its development. That commodity is automatic oil heat. Domestic heating methods are in process of a definite and progressive change. Oil is now the most widely available and the most economical fuel which meets the new requirements for heating. Public recognition of this fact is attested by the remarkable growth of the use of oil burners in the last few years. This development in the use of oil burners, in addition to increasing immediately the sale of fuel oil, represents an economically sound solution to a basic problem of the petroleum industry—the consequences of overproduction and a saner stabilization of the price of petroleum products.

I believe that it is a conservative estimate that there were at the beginning of this year 600,000 oil burners in use in American homes and commercial buildings. This year will undoubtedly see another 150,000 added to these if present sales statistics can be taken as a basis. Two years ago the leading and responsible manufacturers of oil burners and accessory equipment banded together and endowed the Oil Heating Institute as a central office, the primary duties of which were regulation of sales and manufacturing problems within the industry and the publishing to interested home and building owners and building factors of reliable information regarding oil heat. Leading oil companies were not slow in seeing the possibilities in the new field, and twenty-one of them are now supporting the work of the institute.

Not a Substitute

Oil is not a substitute for coal as a domestic fuel. It is an improvement over coal—bringing to the home and building owner new values, new conveniences, new comforts that have never been possible with the older fuels. The oil heater is in itself a weapon of science designed to create higher heating efficiency and eliminate waste. An oil heater, which is thermostatically controlled, burns fuel only when it is needed, and heating engineers have succeeded in an astounding degree in their goal—to insure every unit of fuel energy being used toward the comfort of the owner.

Exclusive of the industrial field, the number of oil burners now in use in the United States represents an annual market for fuel and furnace oils of 45,000,000 barrels. The public relations activities of the Oil Heating Institute are based upon the belief that complete public confidence in and acceptance of oil heating can be established by making known the facts concerning the dependability and superiority of the better types of oil heating equipment and that ample oil is, and will be, available. With such public confidence it is possible to sell 500,000 oil burners annually in the United States. At an average annual consumption of 60 barrels per year this would create a new market for fuel oil, gas oil and distillate of 30,000,000 barrels annually. We believe that if the co-operative effect that is now being put forth is continued during the next five years, this annual figure will be reached. The past five years have seen a much greater proportionate increase in sales.

Profitable Management

"Facts Significant of Profitable Management of Petroleum Refining and Marketing" were discussed in a paper by Henry W. Ralph, salient portions of which follow:—

The oil industry of today faces a serious problem. We are wasting millions of dollars annually. We waste it in production; and must therefore waste it in storage; we waste it in transportation; we waste it in the refinery; and finally, and perhaps the most serious waste of all, we waste it in the channels of distribution.

It is a fine thing to develop additional sales outlets—and it is a fine thing to expand sales through existing outlets—but I can tell you as the result of my own experience that these accomplishments are far easier than to make your selling operations profitable.

It is a fine thing to change your manufacturing operation—to bring out a new product—but it is much easier to do either or both of these things than it is to make a change that is profitable or to bring out a new product that will return profits when it is sold.

Variable Margins

Earnings are very much dependent on the margin that exists between the value of gasoline at the point of shipment in tank cars and the price obtainable from the customer. Some way should be found to eliminate the effect of this important variable. This may be done by subtracting from the profit of the unit the amount of the gasoline margin, and then dividing this difference by the number of gallons of gasoline sold. This rate has been given the designation "gasoline net spread per gallon necessary to break even" and it constitutes for the period in question an accurate measure of operating efficiency.

This rate can be calculated for each month, and for the fiscal year to date. Calculated on the basis of a twelve-month moving average, it becomes an indicator of unusual value—and is a much more accurate measure of operating efficiency than the amount of earnings.

In the operation of bulk stations delivery expense is the most important group of expenses—and the relationship of this group to the total deliveries of gasoline and kerosene is significant. This relationship is based on the assumption of an insignificant volume of other products. If this is not the case adjustment must be made for the unusual condition.

In the selling of motor oils and greases the direct selling expenses are likely to be very high and the relationship of those expenses to the volume of these products sold is very significant.

Apart from these two groups of expenses there are a large number of expenses which are general in character and the relation of these to the total volume of sales in dollars, or to a weighted gallonage figure, is important from the standpoint of criticizing the expenses or the volume moved through individual units.

Mr. Ralph's paper brought the afternoon session to a close.

The annual dinner in the Submarine Grill of the Traymore was attended by more than 100 members. There were no speeches, an early adjournment being taken so that members might see "Drucilla," a mystery play, at the Apollo Theatre, as guests of one of the trustees.

Traffic Problems

The concluding session of the meeting, Friday morning was opened with the report of the auditing committee.

Willis Crane, traffic attorney for the association, read a paper on "Can the Railroads Hold Their Oil Traffic?" in which he said in part:—

In any thorough study of the part which the railroads are to play in the distribution of petroleum and its products, perhaps the most impressive basic consideration is the adaptability of this traffic to other means of transportation than by railroad. The petroleum industry is unique in the extent to which it does and potentially may participate in the transportation of its commodities. The situation is unusual in that the industry is not only a valuable patron of the railroads, but in a quite real sense is actually a competitor of the railroads. To the extent to which the industry performs its own transportation, by that measure the railroads yield to competing instruments of transportation a lucrative traffic which they might otherwise carry.

The pipe line is an accepted and, as a practical matter, almost the exclusive instrument of transportation for crude oil. In 1926 the refineries of the United States ran approximately 779,000,000 barrels of crude oil to their stills. At the estimated weight of 7.4 pounds

per gallon for western crude runs and 6.6 pounds per gallon for eastern crude runs, this represented potential crude oil traffic of approximately 117,000,000 tons. In the same period the railroads of the country transported about 10,700,000 tons of crude oil, or but slightly more than 9 percent of the potential traffic.

Rail Movement Temporary

Much of this rail movement even is unquestionably of only a temporary nature, being flush production in new fields from which adequate pipe line facilities are not provided. In the Eastern district the total crude oil tonnage (108,791 tons) aggregated less than one per cent of the total rail movement of that commodity for the country and an insignificant fraction of the runs to stills in that territory, which on basis of an estimated weight of 6.6 pounds per gallon reached a total of 31,718,887 tons.

The significant thing about these figures is that the crude oil traffic is, as a practical matter, lost to the railroads. That fact itself is enough to make one, who is familiar with the adaptability of petroleum to various means of transportation, wonder whether the characteristics of the petroleum traffic, which have led to the loss of the crude oil movement, may not be operating in a similar way to deprive the railroads of the refined oil traffic. Certainly, it is timely for the railroads to give earnest consideration to the question whether the refined oil traffic is safely theirs, and, if not, to give earnest consideration to means of preserving it.

There is a source of increased revenue which the Eastern carriers are overlooking: That is in the matter of the export traffic. The export market constitutes a safety valve which relieves the burden on domestic markets, and provides a source of revenue to the carriers over and above the traffic requirements of the domestic markets. In a sense the export traffic is pure velvet to the railroads, for it is tonnage which moves without relation to domestic demand.

Consider the situation of the inland refiners in western Pennsylvania or Ohio. In the absence of export rates lower than the domestic rates, the export safety valve is practically closed to these refiners. They can ship none of their heavily-produced products, such as gasoline, or kerosene, and their lubricating oil outlet is continually diminishing.

I have the situation of one representative refiner in the western Pennsylvania field particularly in mind at this time. The witness for that company testified in the general oil rate investigation that its export shipments, consisting entirely of lubricating oil, had diminished from 215 cars in 1920 to 69 cars in 1926.

Surely, this is a traffic opportunity which the carriers have overlooked. Surely, it would have been in the interest of the railroads to have established special export rates from the interior refineries to the Atlantic seaboard which would have preserved the heavy export traffic of 1920 to their rails.

The Western carriers are not overlooking this opportunity. They maintain low rates from the midcontinent field to the gulf ports for export and for coastwise movement, and they are reaping the benefit of their foresight. If the Eastern carriers want a portion of the export business, and of course they do, they too will provide export rates which will move the traffic.

This problem of petroleum distributon is one involving the joint interests of refiners and railroads alike. It is a problem with which we should deal frankly in our relations with the railroads. The railroads are entitled to know the facts. When they fully appreciate the enormous trend of oil traffic to competing instruments of transportation, I feel sure that they will take intelligent steps through judicious rate reductions to hold this desirable traffic to their rails.

The report of the resolutions committee was read by N. H. Weber, its secretary, and was adopted. The resolutions took cognizance of a message from George P. Brockway, long a member, who has retired, and expressed the association's esteem for him and its hope that he would attend future meetings; expressed appreciation of the work of the Washington office and especially of the work of Messrs. Dow, Crane and Lohnes, and of the work of the committees in charge of the annual meeting.

Mr. Keeney, president two years ago, was called on by the chair to preside.

The printed reports of the various departments were gone over one by one and various members expressed their recognition of the work portrayed in the reports.

Price of Prosperity

Dr. Joseph E. Pogue, chemical engineer, New York, discussed "The Price of Prosperity in the Petroleum Industry," in the following paper:—

The price of prosperity in the petroleum industry is the application of sound economic principles to the conduct of the oil business. Have sound economic principles been applied to the conduct of the oil business? In reply, one may ask:—Is the oil business on a firm basis of prosperity?

The gasoline manufacturing branch of the petroleum industry will have a prosperous year in 1928. Why? Because the price of gasoline remained depressed for twelve months, the output of gasoline in response to these low prices was curtailed and kept so, and stocks of gasoline were reduced to very low levels. The last phrase may be repeated: and stocks of gasoline were reduced to very low levels. Moreover, no one came along and prematurely boosted the price of gasoline. Accordingly the spring of 1928 was entered with gasoline stocks 20 percent below estimated normal and with a level of output, taken in conjunction with the limited volume of stocks, inadequate to meet the requirements shaping up ahead. Under such circumstances gasoline prices had to advance. The price movement of gasoline during the first six months of 1928 was a true response to economic conditions, and, in your speaker's opinion, one of the soundest price rises witnessed in the petroleum industry for some time.

Unfortunately, the petroleum refiners of the country, now optimistic, are doing their best to expand their operations to the point where the upward price trend so laboriously established last winter will be reversed. One is reluctantly faced with the apprehension that the refiners are now failing to consider the price demanded for prosperity.

Producers Not Prosperous

The crude oil producers will not have a prosperous year in 1928. And this will be the case despite the exercise of considerable restraint in holding supply far below the possible output. Why? Because the supply of crude oil was not contracted and kept curtailed sufficiently to reduce the stocks of crude oil on hand to reasonable levels. Moreover, someone came along and prematurely boosted the price of crude. The ten largest oil companies, controlling the bulk of the crude oil in storage, could bring about a sound crude oil situation by reducing their production and purchases of oil below their respective requirements sufficiently to lower their stocks of crude oil, say, 100,000,000 barrels. Are these companies willing to adopt such a drastic policy with its unfavorable immediate, but salutory ultimate, effects? They have given no indication of doing so.

Instead of a policy of once-for-all liquidation of an unsound crude oil situation, the petroleum industry has selected instead to adopt a modified form of rationalization, attempting to hold supply to the requirements of demand, but taking no steps to define "demand" or effect a reduction in stocks. This modified form of rationalization is widely hailed as an important constructive step for the industry; but it may not be amiss to point out the possible dangers in the inexperienced application of new economic forces. No criticism can be directed to the soundness of rationalization as an operating policy for an industry. Rationalization probably constitutes one of the major economic advances of recent years. The dangers inherent in the modified form of rationalization as applied in the petroleum industry are several, the most important of which may be briefly summarized as follows:—First, curtailment efforts are concentrated on flush areas, with little emphasis placed upon curbing wildcatting, which creates the risk that new discoveries may keep pace with the growth in consumption, thus perpetuating over-production. Second, no adequate provision has been made for discriminating between crude oil demand and true crude oil requirements or for restraining manufacturing expansion, thus leaving the door wide open for refinery overproduction. And third, no plan is included for the substantial reduction of crude oil stocks, a prerequisite to a sound crude oil situation. It may be hoped that these imperfections will not lead to unfavorable results, or better yet, that the technique of rationalization may be improved so as to care for these contingencies; but it can do no harm to emphasize that the application of a new economic tool should be directed with the utmost comprehensiveness and foresight and that economic tools, like swords, are often two-edged.

Unsound Economics

That the crude oil situation, despite the notable advances made in proration and other forms of production restraint, is even yet handicapped by the application of unsound economics is perhaps best illustrated by the advances in crude oil prices during the summer. The basic function of price is to regulate supply, and when other considerations are permitted to enter into price making, the results are usually unfavorable to the stability of the new prices thus established. It might have been thought that the industry had learned its lesson from the era of inventory speculation and price inflation that characterized the crude oil market during the period 1919-1926.

It is doubtless apparent that the petroleum industry has entered a new phase in its development, in which its operations must be brought into closer conformance with the economic principles which experience had shown to be desirable for the conduct and guidance of other industries. It is not an easy or simple matter to revolutionize the economic policy of a major industrial activity. Yet that is precisely the character of the change now taking place in oil. Willingly or unwillingly, the industry must solve its problems along economic lines. The road to prosperity lies in that direction. But it is a difficult road to travel, for the petroleum industry is still burdened with the cumulative results of its past economic mistakes and is not united in purpose. The price of prosperity in the oil industry, as in all other industries, is the employment of sound economic principles in its conduct. Is the petroleum industry prepared to pay this price?

An interesting address on "Protecting the Future" was made by Edgar L. Smith, president of the Investment Managers Company.

Oil Enters New Era

The satisfactory relations with various government departments now enjoyed by the oil industry were dealt with by Fayette B. Dow, general counsel for the association, in his annual report, which follows in part:—

It is the feeling of our office that, taken as a whole, the oil industry's relation to the federal government is more satisfactory than at any previous time in its history.

If we were asked to give our reasons for this feeling we should say, first, that it is a feeling—a judgment based in part upon what one senses as well as upon more tangible evidence. There is in the atmosphere at Washington, in and out of the departments, a friendly concern about the oil industry's welfare. There is a greater recognition of the competitive struggle within the industry, more knowledge of its economic hazards, and a growing appreciation of the services of the industry to the public.

If a more specific reference is appopriate, we should refer to these facts:—

The Federal Oil Conservation Board, by public hearings and answers to its questionnaires, has sought to learn the truth and the whole truth about oil—its supply in relation to the public's requirements, the methods by which it is produced, manufactured, distributed, the laws under which the industry's practices have developed in the past, the changes in those laws which the conditions of the present require. Its reports have been free from that all-too-familiar criticism of the industry's mistakes or failures, but have had the qualities of statesmanship in seeking to promote better practices for the future.

The Department of Justice, while keeping in touch with the work of the board and the co-operative measures encouraged by it, has shown no desire to interrupt or interfere with the courses of action which have been taken.

The Federal Trade Commission has no important investigation of the oil industry in progress—an infrequent occurrence during the last ten or fifteen years. The report of its latest major investigation, recently published, shows that the facts were gathered with painstaking care and the findings are favorable to the industry.

We find in the decisions of the Interstate Commerce Commission no conclusions adverse to the industry, as, for example, that gasoline is a luxury and can therefore be made to bear proportionately high transportation costs.

On the other hand, the Department of Commerce has continued to extend its useful services, among which we might instance the trade information service covering "foreign petroleum statistics" and "petroleum refineries in foreign countries," while a number of the federal bureaus such as the Bureau of Mines and the Bureau of Standards are at work on problems of a scientific nature, in co-operation with the oil industry and greatly beneficial to it.

In Congress from time to time attacks upon the oil industry are still to be heard, but these are less numerous than they were a few years ago, and are uttered with less effect.

Causes of Improved Attitude

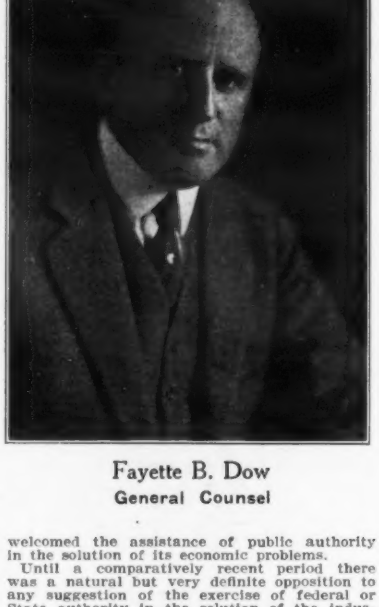
To what is this improved attitude in Washington attributable? Probably to no single cause. There are several influences which may be noted.

The industry's attitude toward the Federal Oil Conservation Board, after a period of uncertainty, became one of candor and co-operation. The appreciation by the industry that certain uneconomic practices in developing producing properties were beyond its control, if unaided by public authority, became the starting point of developments which are likely to have far-reaching consequences.

There has been a progressive, if somewhat belated, recognition in Washington of the fundamental changes in the industry brought about by the dissolution of the Standard Oil Company, of the conflicting interests of the former units of that company, of the strength of the newer oil companies, of the keen competition that exists in the industry, of the meager profits, of the relatively low prices of petroleum products. It is also recognized that there has been a growing appreciation of these facts on the part of the public. It results that if the industry is still a temptation for the politically-minded it is not so popular a target as in former years.

In the government bureaus those who have responsibilities in connection with the oil industry have become consistent readers of the petroleum trade press. The informative influence of our trade press in Washington is far greater than is generally appreciated. Great credit is due to these oil publications for their impressive presentation of the statistical and economic facts concerning the industry.

But the new era which we have in mind is not one of better understanding, important as that is, but an era in which an intensely individualistic and competitive industry has begun to practice a genuine co-operation and has



Fayette B. Dow
General Counsel

welcomed the assistance of public authority in the solution of its economic problems.

Until a comparatively recent period there was a natural but very definite opposition to any suggestion of the exercise of federal or State authority in the solution of the industry's problems. The industry, while rendering a great public service in supplying sources of light, heat and power indispensable to the public welfare, is not a public utility. Its great progress, as in the case of all American industries, has been made possible by the free play of individual initiative. The war period, with its troublesome investment of authority in government bureaus, is still a fresh memory. The undoubted fact that a limited public supervision tends to be progressively more inclusive has been in the minds of all who have studied the practical difficulties requiring a remedy. It is entirely understandable, therefore, that the industry has desired to solve its problems free from government interference. But the course of events has seemed to make the choice of complete individual freedom a path of economic chaos and disaster.

Federal Oil Conservation Board

The advent of the Federal Oil Conservation Board, almost four years ago, brought important public officials, if not official authority, into the picture with dramatic and unexpected suddenness. The President of the United States himself took cognizance of the situation:—"The present methods of capturing oil deposits are wasteful to an alarming degree. . .";: it is "impossible to conserve oil in the ground under our present leasing and royalty practices if a neighboring owner or lessee desires to gain possession of his deposits." He appointed four men of no less standing than members of his own cabinet. "I have constituted a Federal Oil Conservation Board . . . to study the government's responsibilities . . .; to enlist the full cooperation of the oil industy. . . . I . . . desire that these conferences be open and exhaustive. . . . The future might be left . . . to the law of supply and demand, but . . . the oil industry's welfare is so intimately linked with the industrial prosperity and safety of the whole people that government and business can well join forces to work out this problem of practical conservation."

Wasteful methods, brought about by neighboring owners, have created a situation so alarming as to jeopardize the public safety and the oil industry's welfare, which is so intimately a part of our national life that we cannot rely upon economic law. On the contrary, government and business must join forces.

This was the substance of a message that was addressed, not to a federal trade commission or a department of justice or a senate committee, but to the members of the President's cabinet.

It was, of course, far easier for the President to issue this challenge of statesmanship than for the industry to meet it as a unit. Here was an industry whose very genius seemed to be born of its freedom of action. Suppose a neighboring owner did start the mad rush of competitive drilling. Was not that one of the rules of the game? Had not the Supreme Court of Pennsylvania said:—"Every land owner or his lessee may locate his wells wherever he pleases, regardless of the interest of others. He may distribute them over the whole farm or locate them only on part of it. He may crowd the adjoining farms so as to enable him to draw the oil and gas from them. What, then, can this neighbor do? Nothing, only go and do likewise. He must protect his own oil and gas."? (Bernard v. Monongahela Natural Gas Company, 65 Atl. 801.)

But the industry has recently added greatly to its knowledge of the functions of gas in an oil structure and a candid study of current producing methods, in the light of these better-understood facts, aided not a little by unfavorable profit and loss accounts, brought sounder conclusions.

The history of this phase is fairly reflected in a statement made by Secretary Work in May, 1927:—

"The government's position relative to overproduction evils, the necessity for avoidance of waste, and actual conservation of petroleum in the ground, is clearly stated in the report which was submitted by the Federal Oil Board to President Coolidge last September. More than two years ago when the President created this board to counsel with the oil industry 'in the interest of the government and the industry alike,' the thought was expressed by certain elements in the oil world that there was no overproduction and no danger of such a menace; that the industry would be able to better its own problems if unhampered by federal suggestions. But after painstaking efforts and one of the most intensive surveys ever made by any agency of the government, the President's board pointed out the prevalence of certain existing and potential evils. To the credit of the industry, it may be said, these menaces were readily acknowledged and immediately steps were taken by the greater portion of the industry to observe as far as possible some of the suggestions which this federal board advanced.

"The present plight of the industry is recognized fully by this board, and I feel that the leaders of the oil world now realize that the government is ready and willing to assist in every proper manner to meet the crisis."

Importance of Cooperation

The Federal Oil Board's report stated that the power of the Federal Government, apart from national defense, to regulate oil production is limited to its own oil lands, stressed the importance of cooperation in the development of oil pools, and strongly urged action by the state where it found controlling power to reside.

As to the authority of the states, the board said that "the right of the state under its police powers to prevent the action of one owner from working a deprivation of the rights of other owners of a common property, and to prevent waste or destruction of the common property by one of the owners, seems reasonably clear. The right of the state to prevent the waste of natural resources is rendered more important in this matter than by the newly discovered, or at least, more widely recognized facts regarding the role of gas in the oil sands * * *. The authority of the state to prevent the waste of natural gas has already been declared and it logically applies as well to the dissipation of gas pressure without which great quantities of oil would be entirely wasted. * * * State governments should promptly study the economic advantage of cooperative action by land owners and oil operators, looking toward sane development of new fields, and consider legislation authorizing cooperative agreements, under proper safeguards."

The Committee of Nine recommended the enactment of federal and state legislation which would make it clear that agreements for the cooperative development and operation of single pools are not unlawful and which, also, would permit agreements under government sanction for the curtailmnt of production. It recommended further study of the waste of natural gas "in order that legislation may be formulated which will forbid such waste as fully as may be done without working injustice and unreasonable hardship."

But conditions have not waited for new legislation. Events have moved rapidly in the two principal oil producing states east of the Rockies, Texas and Oklahoma. Under statutes in effect for some years (Texas Session Laws 1919, 285; Oklahoma Session Laws 1915, 398) the authorities of those states have issued orders restricting and prorating the output of flush pools. Again to the credit of the industry it should be said that these actions of public authority have been taken with its almost complete approval, and were preceded by voluntary cooperation to accomplish the same purposes.

The most recent of these orders is that issued on September 8 of this year by the Corporation Commission of Oklahoma. It restricts, until modified, the maximum production of crude oil in Oklahoma to 700,000 barrels a day, of which the flush pools are permitted to produce 425,000 barrels.

Proration in Oklahoma

The findings of the commission relied on to support this order are of special interest. It finds that the current market demand for crude oil in Oklahoma at this time amounts to about 700,000 barrels per day and that a decline in this demand may be expected during the fall and winter months; that there is a nation-wide condition of overproduction in the American petroleum industry, the quantity of daily production shut in in the various important oil producing states being as follows:—California, 130,000 barrels per day; West Texas, 1,000,000 barrels per day; Wyoming, 50,000 barrels per day; Oklahoma, 60,000 barrels per day; that for the first time withstanding the shutting in of 60,000 barrels per day in Oklahoma there are numerous flush pools where large wells are encountered and active drilling campaigns are in progress. These pools and their flush production are cited. It finds that in the very near future the total production in the State of Oklahoma, unless restricted, might reach 800,000 or 900,000 barrels per day, while the demand may decline to 600,000 barrels.

The commission states that it has promulgated the rules and regulations of the order to accomplish the following purposes:—

"(a) To prevent the waste of oil, gas, gas pressure, casinghead gas, and casinghead gasoline, as the term waste is defined in the statutes of Oklahoma. (b) To prevent the unfair and inequitable taking of oil, gas, and casinghead gas, and the disproportionate use of the gas pressure to produce oil by one or more operators in a single pool against the other operators in such pool. (c) That owing to the character of the market facilities available to the oil operators of Oklahoma, and to the economic situation of the State of Oklahoma as a producing and refining center, all of the oil operators of this state in effect are confined to a common market for their production. That, accordingly, unrestricted production in one flush pool of the state constitutes a discrimination against the operators in any other flush pool where production is restricted or curtailed. That the further purpose of these regulations is to equalize the situation of the operators in the different flush pools of the state and to prevent discrimination in the taking of oil from one flush pool againt another or other flush pools."

It will be observed that the order is predicated not only upon the prevention of waste but to prevent an "unfair and inequitable taking" of oil, as well as a "disproportionate use" of gas pressure. In other words, the order is apparently justified, in the view of the commission, not only by its duty to prevent waste under the police power but its recognition of the correlative rights of the surface owners of the oil deposits.

We shall not discuss at this time the legal implications. Obviously the conservation statutes of the states have sought to change greatly a situation under which an owner or his lessee was said to have the right to drill anywhere on his lease and at any time that suited his own business purposes. Obviously also, forward steps are being taken in recognition of the correlative rights of "neighbor owners or lessees," and rules seem to be in the making which will define what is neighborly conduct in an oil producing field.

Shut-in Production

The shut-in production has probably been understated by the Oklahoma Commission, especially as to West Texas. The present

(Continued on page 64)

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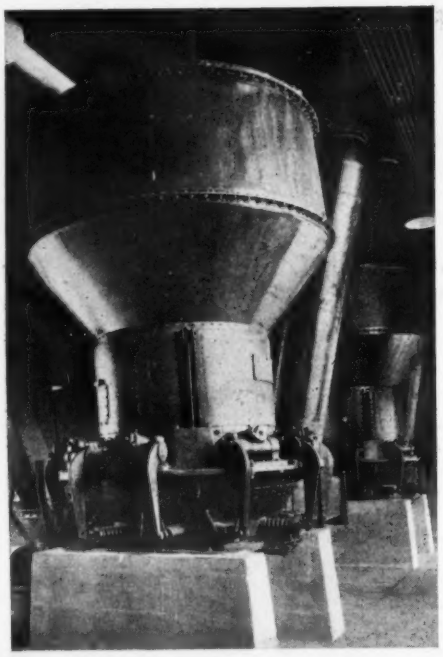

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Fertilizer Materials

Prices Easier Under Quiet Trading—Storm Delays Florida Phosphate Shipments—Look for Heavy Cottonseed Meal Sales

Fertilizer manufacturers have been slow to come into the market for materials for the coming spring selling season, and the market last week was a quiet affair throughout. There was relatively little buying of ammoniates and the price trend was again toward lower levels.

The tropical hurricane which lashed Porto Rico and Florida during the week causing extensive damage to growing crops, was expected to be a factor in the fertilizer situation during the coming season. Both Porto Rico and Florida are large users of fertilizer, and it is expected that considerable quantities will be required in the agricultural rehabilitation which is getting under way in these territories. Reports from Florida indicated that little damage had been suffered by the phosphate rock producing sections of the State, although it was expected that the movement of rock from the mines would be delayed somewhat until normal transportation facilities are restored.

Cottonseed meal is expected to be an important factor in the fertilizer market this season. Sellers have been offering October shipment meal at as low as $32 per ton at mill points in recent weeks, this price being about $13 under the current market on prompt shipment material. The storm throughout the South last week, it was expected, would materially increase the supply of off-colored cottonseed meal available in the market this year. With a large supply of this ammonia available at low prices, it was expected that heavier consumption would ensue. Agriculturists in the South, in some instances, have in seasons past used straight cottonseed meal as a fertilizer.

Reports from London indicate that the bulk of the sales of Chilean nitrate in Europe and Egypt will be handled by a newly formed sales organization, taking in five prominent European distributors who have organized a sales company. The Chile producers have allotted 51 percent of all production to be sold in Europe and Egypt to this centralized selling organization.

Price Changes

Prices were changed during the past week as follows:—

Advanced	Reduced
None.	Blood, domestic, dried, spot, 5c. per unit.
	High-grade ground, Chicago, 25c. per unit.
	Imported, September shipment, 5c. per unit.
	Bone, raw, ground, imported, 50c. per ton.
	Fish scrap, dried and ground, bags, f.o.b. Baltimore, $6 per ton.
	Nitrogenous, 8-10 percent ammonia, c.i.f. Atlantic ports, 5c. per unit.

Comparative Values

Index numbers compiled from four typical fertilizer materials on the basis of a normal of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
97.2	97.2	97.2	99.2

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Ammoniates

Nitrate of Soda.—Small-lot trading again prevailed in the spot market last week, and the market was without change. Importers offered nitrate for immediate shipment at $2.10 to $2.12½ per 100 pounds, with October shipment material quoted at $2.15 and January-June, 1929, at $2.17½ per 100 pounds. The Southern trade has not been operating in a large way on futures as yet. A fair volume is reported on domestic synthetic, equal monthly quantities January-June, 1929, at $2.17½ per 100 pounds in bags and $2.07½ per 100 pounds in bulk, ports.

LONDON, Sept. 11.—Demand for Chile nitrate at the new prices fixed by the directorate of the Producers' Selling Corporation is reported very satisfactory with large sales for spring delivery having already been made. A feature of the market is the organization of four of the largest distributing organizations into the Chilean Nitrate of Soda Distributors, Ltd., to co-ordinate their sales in consuming markets. The Producers' Association has allocated this group about 51 percent of the total production available for sale in Europe and Egypt. Shipment and production figures for August, with comparison for 1927 and 1926, follow:—

	Tons		
Shipments to—	1928.	1927.	1926.
Europe and Egypt	115,000	122,000	51,000
United States.....	39,000	87,000	52,000
Japan and other countries	19,000	31,000	16,000
Production, August.	*270,000	140,000	141,000
Loading Sept. 1 for—			
Europe and Egypt	32,000	36,500	22,000
United States.....	9,000	500	4,000
Japan and other countries	2,000	11,000	7,000

The summary of the position as of August 31 is thus rectified as follows:—

	Tons		
Visible supply—	1928.	1927.	1926.
Europe and Egypt	487,500	308,000	336,000
United States.....	129,000	96,000	158,000
Japan and other countries	42,000	68,000	46,000
Stocks in Chile.....	838,000	782,000	1,266,000
In sight Aug. 31..	1,496,500	1,254,000	1,806,000

* 69 oficinas working.

Sulphate of Ammonia.—A strong market on domestic sulphate of ammonia prevailed last week, quotations holding unchanged. The bulk of current production was moving out on contract, and relatively little material was available on the spot position. Producers were quoting $2.40 per 100 pounds, bulk, delivered Northern or Southern markets, with resale stocks held at 5c. per 100 pounds over this figure. The export market was nominal, with sellers withdrawn.

LONDON, Sept. 11.—Export prices have again been advanced, the market being quoted at £9 15s. 6d. per ton in double bags for neutral quality, prompt shipment, f.o.b. United Kingdom ports. There is a good movement to the home trade reported, with the market quoted at £10 per ton for August delivery, the quotation rising progressively to £10 13s. per ton for February-June delivery, on neutral quality sulphate, basis 20.6 percent nitrogen, delivered, carriage paid, to buyer's nearest wharf or station, in lots of 6 tons or over.

Cottonseed Meal.—With holders still quoting $45 to $46 per ton for 7 percent meal, in bags, f.o.b. mills, trading continued quiet. New crop was available at $32 to $34 per ton, f.o.b. mills, for October shipment, and in view of the wide differential, buyers were holding off the market. It is expected that meal will be utilized to a considerable extent by fertilizer mixers this season, unless prices should advance radically.

Blood.—Holders were showing easier price views, as demand continued of small proportions. Domestic dried blood on spot was 5c. per unit lower at $4.65, with high-grade ground at Chicago 25c. down at $4.50 per unit. Imported blood, September shipment, was 5c. lower at $4.90 per unit. Fertilizer manufacturers were not in the market for supplies in large quantities.

Fish Scrap.—Ground scrap at Baltimore was reported available last week at $70 per ton, in bags, f.o.b., this quotation being $6 per ton under the previous basis, and being due to the larger catch during recent weeks. There were no changes in prices for either dried scrap or wet acidulated at factories. A good movement was reported, and while the market tone has appeared easy in several recent transactions, sellers did not reduce quotations further.

Nitrogenous.—Inquiry for nitrogenous continued rather light last week, and the market reflected this condition. Sellers were offering the 8-10 percent ammonia grade, September shipment, at $3.75 per unit, in bags, c.i.f. Atlantic ports. This quotation represented a 5c. decline from the previous week's price level.

Tankage.—Small-lot trading again predominated in this division of the market last week. Fertilizer manufacturers were not inclined to add to their holdings to any material extent, and it was felt that the trade would not be in the market in a large way until the outlook for fertilizer sales during the spring season is more clearly defined.

Current prices on fertilizer materials, formerly printed on page 12, are now printed at the end of this market report.

Valuable information on Imports and Exports of Fertilizer Materials is given in port lists beginning on page 5.

Holders of tankage, however, continued to show firm views on the situation, and prices were held without change.

Phosphates

Movement of superphosphate had picked up somewhat last week, but with this exception: the market continued rather quiet on all phosphates. South American ground bone was a trifle easier, quotations holding unchanged on other materials.

Bone Material.—South American raw ground bone was 50c. per ton lower at $37.50 last week, but with this exception: quotations were unchanged. Fertilizer manufacturers were not heavy buyers of any grades.

Phosphate Rock.—Phosphate mining companies suffered only minor damage from the hurricane which swept Florida early in the week, and while production was slowed down somewhat, no material damage at any of the producing properties was reported. It was expected, however, that the movement of phosphate rock would be delayed somewhat until transportation facilities are restored to normal. There were no price changes reported on any grades of rock during the week.

Superphosphate.—There was a good demand for superphosphate reported last week, and the market continued in firm position. Consumers in the small grain territory of the upper south were reported using this material rather liberally this fall.

Potashes

There was a steady market for all grades of potash reported during the week, but comparatively little activity was to be noted. Spot trading has not as yet developed to any extent, either on resale parcels or stocks out of warehouse.

Some inquiry for salts for October shipment was reaching the American sales agents of the German and French syndicates. On business placed before the close of September on potashes for October shipment a discount of 4 percent is offered by the producers.

Sulphur and Pyrites

A strong and active market for sulphur was reported during the week, with the bulk of the movement along contract lines. Sellers continued to quote $18 to $19 per ton, in bulk, at mines, and $22 to $23 per ton, bulk, ex vessel, Atlantic ports.

The pyrites situation continued without change, Spanish being quoted at 13c. to 13¾c. per unit, in bulk, according to grade, c.i.f. Atlantic ports.

Current Prices

(For late price changes, see page 2)

Ammoniates

(Unit is 1 p.c. of ammonia in 1 ton)

Ammonia sulphate, domestic, delivered Northern markets, bulk	100 lbs.	2.40	@ 2.45
Southern markets, bulk,	100 lbs.	2.40	@ 2.45
Ammonium sulphate, f.a.s. New York, double bags	100 lbs.	No prices	
single, bags	100 lbs.	No prices	
imported, synthetic, bulk, c.i.f. Northern ports	ton	No prices	
c.i.f. Southern ports, bulk,	ton	No prices	
Ammonia sulphate-nitrate, 26 p.c. nitrogen, 31.6 p.c. ammonia, imported, Northern ports, bags	ton.	57.60	@ —
Southern ports, bags	ton.	58.35	@ —
Blood, domestic, dried, 15@17 p.c. ammonia	unit	4.65	@ —
high-grade ground, 16@17 p.c., f.o.b. Chicago, bulk	unit	4.50	@ —
imported, Sept. shipment	unit	4.90	@ —
Cottonseed meal, 7 p.c. ammonia, mills, bags	ton.	45.00	@46.00
October	ton.	32.00	@34.00
Fish scrap, dried, 11@12 p.c. ammonia and 15 p.c. bone phosphate, factory, bulk	unit	5.00	& .10
ground, 11@12 p.c. ammonia, 15 p.c. bone phosphate, f.o.b. Baltimore, bags	ton.	70.00	@ —
wet acidulated, 6 p.c. ammonia, 3 p.c. phosphoric acid, factory, bulk	unit	4.25	@ .50
Hoofmeal, f.o.b. Chicago	unit	4.00	@ —
imported, to arrive	unit	3.90	@ —
Lime nitrate, 15½ p.c. nitrogen, 28 p.c. lime, imported, Northern ports, bags	ton	No prices	
Southern ports, bags	ton.	43.00	@ —
Lime-urea, 34 p.c. nitrogen, 41.3 p.c. ammonia, 100-kilo bags, gross for net, car lots, Northern ports	ton.	82.00	@ —
Southern ports	ton.	82.75	@ —
Nitrogenous, 8@10 p.c. ammonia, bags, September shipment, c.i.f. Atlantic ports	unit.	3.75	@ —
Soda nitrate, bags	100 lbs.	2.10	@ 2.12½
Oct.-Nov.-Dec.	100 lbs.	2.15	@ —
Jan.-June	100 lbs.	2.17½	@ —
synthetic, domestic, equal monthly quantities, January-June, 1929, bags, ports	100 lbs.	2.17½	@ —
bulk, ports	100 lbs.	2.07½	@ —
Tankage, domestic, concentrated, 14 to 15 p.c., f.o.b. Chicago, bulk	unit	4.25	@ —
garbage, f.o.b. Chicago, bulk,	ton	5.00	@ 6.00
ground or screened, 10@15 p.c., bulk	unit	4.65	& .10
unground, bulk	unit	4.40	& .10
11@15 p.c., f.o.b. Chicago, bulk	unit	4.25	& .10
South American, to arrive	unit	5.00	& .10

Phosphates

(Quotations per ton, in bulk)

Acid phosphate (see superphosphate).			
Bones, raw, ground, 4½ p.c. ammonia, 50 p.c. phosphate, f.o.b. Chicago		42.00	@ —
South American, to arrive		37.50	@ —
steamed, ground, 1¼ p.c. ammonia, 60 p.c. phosphate, f.o.b. Chicago		28.50	@30.00
unground, soft, f.o.b. Chicago		26.50	@27.00
South American, to arrive		34.50	@ —
Bone meal, steamed, ground, domestic, 3 p.c. ammonia, 50 p.c. phosphate		36.00	@ —
f.o.b. Chicago		28.50	@30.00
unground		28.00	@30.00
Phosphate rock, Florida, high-grade, hard, 77 p.c., mines		6.50	@ —
land pebble, 68 p.c. minimum, mines		3.10	@ 3.25
70 p.c., mines		3.75	@ 3.90
72 p.c., mines		4.25	@ 4.35
basis 75 p.c., 74 p.c. minimum, mines		5.25	@ 5.50
75 p.c. minimum, mines		5.75	@ —
basis 77 p.c., 76 p.c. minimum, mines		6.25	@ —
Tennessee, 72 p.c., mines		5.00	@ —
75 p.c., mines		5.50	@ —
Superphosphate, basis 16 p.c., f.o.b. Baltimore		10.00	@ —
guaranteed 16 p.c., f.o.b. Baltimore		10.50	@ —

Potashes

Kainit, 12.4 p.c., bags	ton.	12.00	@ —
bulk	ton.	9.00	@ —
14@16 p.c., bags	ton.	12.50	@ —
bulk	ton.	9.50	@ —
Manure salts, 20 p.c., bags	ton.	15.40	@ —
bulk	ton.	12.40	@ —
30 p.c., bags	ton.	21.75	@ —
bulk	ton.	18.75	@ —
Muriate, 80@85 p.c., basis 80 p.c., bags	ton.	36.40	@ —
bulk	ton.	34.80	@ —
Potash-magnesia sulphate, 48@53 p.c., basis 48 p.c. (double manure salt), bags	ton.	27.25	@ —
bulk	ton.	25.65	@ —
Sulphate, 90@95 p.c., basis 90 p.c., bags	ton.	47.30	@ —
bulk	ton.	45.70	@ —

Bagged salts sold on foreign weights, tares and analyses; bulk on American weights and foreign analyses.

The following discounts are offered:—On orders prior to October 1 for October shipment, 4 percent; November 1 for November shipment, 3 percent; December 1 for December shipment, 2 percent.

Prices guaranteed against decline up to April 30, 1929.

Sulphur and Pyrites

Brimstone, crude, car lots, mines, bulk	ton.	18.00	@19.00
ex vessel, Atlantic ports, bulk,	ton.	22.00	@23.00
Pyrites, Spanish, c.i.f. Atlantic ports, bulk	unit-ton	.13	@ .13¾

Atlanta Fertilizer Market

ATLANTA, Sept. 20, 1928.

The fertilizer material market remains quiet. Some superphosphate is finding sale in the small grain territory of the upper South, but very little mixed goods are used for fertilizing these crops.

Organic ammoniates continue to show weakness, due, it is thought, to the threat of cottonseed meal. At any rate very little trading interest is showing up at present. The storm that swept the lower cotton belt this week added to the probability of more off-colored cottonseed meal entering the market than usual, which, of course, has added to the probability of this source of ammonia being comparatively abundant and cheap.

Inorganic ammoniates are being affected to some degree by cottonseed meal. Trading is light in all forms of inorganic ammoniates.

The outlook for fertilizer consumption in the Southeast was dimmed somewhat this week by the stormy weather that injured the crops. Much cotton was blown from open bolls upon the ground and beaten into the ground while the torrential rainfall gashed up the fields and flooded low areas. This damage was restricted largely to the coastal plain area, the largest cotton producing area of the Southeast, leaving the Piedmont area undisturbed, where cotton conditions are fairly good, but rapid deterioration is in evidence from unfavorable weather. The quotations of this market are as follows:—

SUPERPHOSPHATE.—$11.46 per ton, Atlanta basis.

NITRATE OF SODA.—$2.17½ per hundred at ports.

SULPHATE OF AMMONIA.—$48 per ton Southeastern points.

COTTONSEED MEAL.—7 percent meal at $33 per ton, mill points, October.

AMMONIUM SULPHATE NITRATE.—$58.35 per ton, Southern ports.

CALCIUM NITRATE.—$43 per ton, Southern ports.

LIME UREA.—$83 per ton, Southern ports.

NITROGENOUS.—$3.85 per unit ammonia, Southern ports.

TANKAGE.—South American, to arrive, $5 unit of ammonia and 10c. B.P.L.

BLOOD.—$4.95 to $5 per ton, Southern ports.

BONE.—3 and 50, Chicago, ground, $28.50 to $30 per ton; raw, 4½ and 45, at $38 per ton, port.

POTASH.—At importers' schedules.

Baltimore Fertilizer Market

BALTIMORE, Sept. 20, 1928.

It is beginning to look as if the tonnage of fertilizer mixtures shipped out this Fall will drop below the corresponding period of last year, the difference being estimated at as much as 10 to 15 percent. The blame for this somewhat disappointing prospect is laid upon the weather for the most part. Farmers are mostly in a position to make liberal purchases, their crops having been on the whole good. But wet weather has delayed Fall tilling of the soil and the expectation is that the acreage cultivated will be reduced.

This has reacted somewhat on demand for crude fertilizer materials, as the manufacturers of mixtures feel that distribution of the latter will be curtailed, and more or less uncertainty as to the requirements of the factories prevails. At that, interest in materials is on the increase, and during the last week some expansion in demand has been noted. This has created a more hopeful feeling. Quotations as to various items, however, are rather easier than they were for a considerable time, but, available supplies do not appear to be excessive.

Organic ammoniates are not cutting a very important figure in the business these days, having been to a large extent supplanted by inorganic substances. But, the former do not lack a receptive market, being used in impressive quantities for feeding purposes.

The menhaden fishing fleet in the lower Chesapeake Bay found the past week an unsatisfactory one most of the time, the storm from the West Indies having greatly interfered with operations. The catch on some days amounted to virtually nothing. A change for the better was noted today, with prospects that the rest of the current week will yield fair results.

Current quotations are as follows:—

FISH SCRAP—The figures mentioned range from $5 to $5.15 per unit at factory, with some market observers asserting that it might be possible to have a bid slightly under $5 considered, but no transactions on such a basis have been reported. The price of fish meal ranges from $70 to $72 per ton.

TANKAGE—Under the influence of the recent easing off, quotations on this ammoniate sagged to $4.50 per unit for 11 and 15 high-grade ground material, c.a.f. basis Baltimore, with figures named all the way up to $4.75 and 10c.

BLOOD.—The figures mentioned run from $4.50 to $4.60 per unit for high-grade ground stocks, c.a.f. basis Baltimore, the market being quiet.

SUPERPHOSPHATE.—Nothing has occurred to change the price level, which remains at $10 per ton for run of pile and $10.50 for 16 percent milled and screened stocks.

NITRATE OF SODA.—Importers continue to ask $2.15 per 100 pounds for near-by deliveries, with the more distant shipments at $2.17½. The market is quiet.

GARBAGE TANKAGE.—This material is reported to be quite scarce, and the prevailing figures named are rather firm at $4.10 and 70c. per unit.

NITROGENOUS MATERIAL.—Quotations range from $3.80 to $3.85 per unit. The business being done is sufficiently active to encourage fairly frequent imports.

POTASH.—Nothing occurred during the week to change the situation with respect to this product, quotations on which are the same for all Atlantic ports and as they have been for months, with the exception that the discount has been taken off.

BONE.—Prices vary appreciably, the figure named for 3 and 50 steamed stocks running from $30 to $33 per ton and those for 4½ and 50 ground raw supplies from $34 to $38.

Chicago Fertilizer Market

CHICAGO, Sept. 20, 1928.

Minor price changes, most of them on the up-side, developed in the Chicago fertilizer market the past week. There was just a fair demand for blood materials and most kinds of tankage were holding unchanged, although liquid stick was marked up slightly. Cattle jaws, skulls and knuckles ruled at better prices, in the bone materials division, and one or two grades of cracklings, especially beef on a protein basis, went somewhat higher. The market as a whole was not very active.

Ruling prices were:—

BLOOD (per unit of ammonia).—High grade, ground and unground, $4.50 to $4.75; unground, suitable for feeding, 11 to 12 percent, $4.75 to $5; plain to good, $4.50 to $4.75.

TANKAGE MATERIALS (per unit of ammonia).—High grade, ground, $4 to $4.15; unground, $3.10 to $3.25; hoof meal, $4 asked; liquid stick, $3.75 to $4; unground bone tankage, per ton, $24 to $25.

BONE MATERIALS (per ton).—Ground steamed bone, $28.50 to $30; unground steamed bone, $26.50 to $27; raw bone meal, $35 to $45; cattle jaws, skulls and knuckles, $42 to $45; rejected manufacturing bones, $45 to $50; grinding hoofs, pigs' toes and waste horn materials, $45 to $47.50; junk and hotel kitchen bones, $27 to $28; pork cracklings, soft pressed, $85 to $87.50; beef cracklings, soft pressed, $50 to $55; hard pressed cracklings, per unit of protein, $1.15 to $1.25.

Bids and Awards

Bids Wanted

Baking Powder

Veterans Bureau

Bids are wanted October 2 by the supply division, United States Veteran Bureau, Washington, for furnishing baking powder for various hospitals.

Bituminous Cement

Pedricktown Ordnance Depot

Bids are wanted, proposal 18, September 26, by the commanding officer, ordnance depot, Pedrickton, N. J., for 2,800 gallons of adhesive bituminous cement.

Gasoline

Springfield Armory

Bids are wanted, proposal 41, September 26, by the commanding officer, Springfield Armory, Mass., for 4,000 gallons of motor gasoline.

Fort Leavenworth

Bids are wanted, proposal 10, September 25, by the quartermaster, Fort Leavenworth, Kans., for 10,000 gallons of motor gasoline.

U. S. Engineer, Memphis

Bids are wanted, proposal 23, September 25, by the United States engineer at large, 904 McCall building, Memphis, for 8,000 gallons of gasoline.

Gasoline and Kerosene

Marine Corps, Washington

Bids are wanted, proposal 206, September 25, by the quartermaster, United States Marine Corps, Navy building, Washington, for gasoline and kerosene for various depots.

Panama Canal

Bids are wanted, schedule 1902, October 3, by the general purchasing officer, Panama Canal, Washington, for bulk gasoline and kerosene.

Paint Brushes

Navy Department

Bids are wanted, schedule 9716, October 9, by the bureau of supplies and accounts, Department of the Navy, Washington, for paint and varnish brushes for various navy yards.

Paint Materials

Marine Corps, Philadelphia

Bids are wanted, proposal 208, October 1, by the depot quartermaster, United States Marine Corps, 1100 South Broad street, Philadelphia, for 1,000 gallons of petroleum spirits, 1,200 gallons of interior varnish, 1,000 gallons of spar varnish, 2,000 gallons of boiled linseed oil.

Paints

Fort Hayes

Bids are wanted, proposal 20, October 8, by the contracting officer, Fort Hayes, Columbus, Ohio, for 1,000 gallons of "barreled sunlight" and other miscellaneous paints.

Carlisle Barracks

Bids are wanted, September 25, by the quartermaster, Carlisle Barracks, Pa., for 4,000 gallons of red roofing paint.

Photographic Supplies

U. S. A. Medical Corps, Brooklyn

Bids are wanted, proposal 17, October 1, by the contracting officer, medical section, New York general depot, Fifty-eighth street and First avenue, Brooklyn, for a lot of miscellaneous photographic supplies.

Soap

Fort Sam Houston

Bids are wanted, proposal 90, September 28, by the quartermaster supply officer, Fort Sam Houston, Texas, for 120,000 pounds of laundry soap, 4,032 cakes of coarse scouring soap, 4,032 cakes of fine scouring soap.

Spar Varnish

Navy Department

Bids are wanted, schedule 9743, October 2, by the bureau of supplies and accounts, Department of the Navy, Washington, for 600 gallons of spar varnish for Puget Sound yard.

White Lead Paste

Marine Corps, Washington

Bids are wanted, proposal 211, September 28, by the quartermaster, United States Marine Corps, Navy building, Washington, for 10,000 pounds of white lead paste.

Contracts Awarded

Acetylene

Staten Island Lighthouse Circular 27,820

New York Navy Yard, 200,000 cubic feet of acetylene, $17.

Airplane Dope

Wright Field Circular 71

Glidden Company, 1,100 gallons of pigmented nitrate dope for Middletown, Pa., at $1.18, f.o.b.; 3,300 gallons for Fairfield depot, at $1.18, f.o.b.; 220 gallons for Wright field, at $1.18, f.o.b.; ninety days, 1 percent.

Perry-Austin Manufacturing Company, 5,500 gallons of pigmented nitrate dope for San Antonio depot, at $1.363; 4,400 gallons for Rockwell depot, at $1.22, f.o.b.; 1,100 gallons for New York depot (for Hawaii), at $1.22, f.o.b.; 1,100 gallons for New York depot (for Philippines), at $1.22, f.o.b.; 1,100 gallons for New York depot (for Panama), at $1.22, f.o.b.; 135 days, 1 percent.

Casein

Treasury Department Circular 945

Casein Manufacturing Company, 1,000 pounds of casein, 16c. per pound, 1 percent.

Caustic Potash

Wright Field Circular 56

Harshaw, Fuller & Goodwin Company, 15,180 pounds of caustic potash, at 8.3c.

Caustic Soda

Wright Field Circular 56

B. T. Babbitt, Inc., 161,000 pounds of caustic soda, at 3.35c., f.o.b. Albany, 1 percent.

Cyanides

Wright Field Circular 56

Globe Chemical Company, 750 pounds of potash cyanide, at 57c.

Roessler & Hasslacher Chemical Company, 900 pounds of soda cyanide, at 18c., 0.5 percent.

Ethyleneglycol

Wright Field Circular 74

National Carbon Company, 5,000 gallons of ethyleneglycol, at $2.84, 2 percent.

Fuel Oil

Staten Island Lighthouse Circular 27,831

Tide Water Oil Company, 100,000 gallons of bunker B fuel oil, 2½c. per gallon.

Gasoline

Watervleit Arsenal Circular 10

Standard Oil Company of New York, 3,000 gallons of gasoline, 15½c. per gallon.

Glycerin

Raritan Arsenal Circular 23

Grasselli Chemical Company, 500 gallons of glycerin, at $1.50, 1 percent.

Muriatic Acid

Fort Mason Circular 67

Herbert F. Dugan, 75c.

Nitric Acid

Wright Field Circular 56

Globe Chemical Company, 3,000 pounds of nitric acid, at 8c.

Nitrogen

Edgewood Arsenal Circular 20

International Oxygen Company, 100,000 cubic feet of nitrogen, $2.10, 1 percent.

Paints and Oils

Fort Hayes Circular 7

Apex Color Works, orange shellac, $1.95; zinc, $1.40.

Pittsburgh Plate Glass Company, ocher, 4¾c.; drier, 57c.; black enamel, $1; putty, 4c.

Impervious Paint & Varnish Company, rose lake, 22c.; roof paint, 69c.; wax, 17c.; flat white, $1.08.

Dean & Barry Company, linseed oil, 76c.

C. A. Woolsey Paint & Color Company, spar varnish, 90c.

Frey-Yenken Paint Company, turpentine, 50½c.; lampblack, 15c.; limeproof green, $1.50.

Shepard Paint Manufacturing Company, light gray paint, $1.45.

Raritan Arsenal Circular 21

E. I. duPont de Nemours & Co., 570 gallons of acidproof black coating, 58c. per gallon.

Fort Washington Circular 8

Butler-Flynn Paint Company, 500 gallons of linseed oil, at 75c.

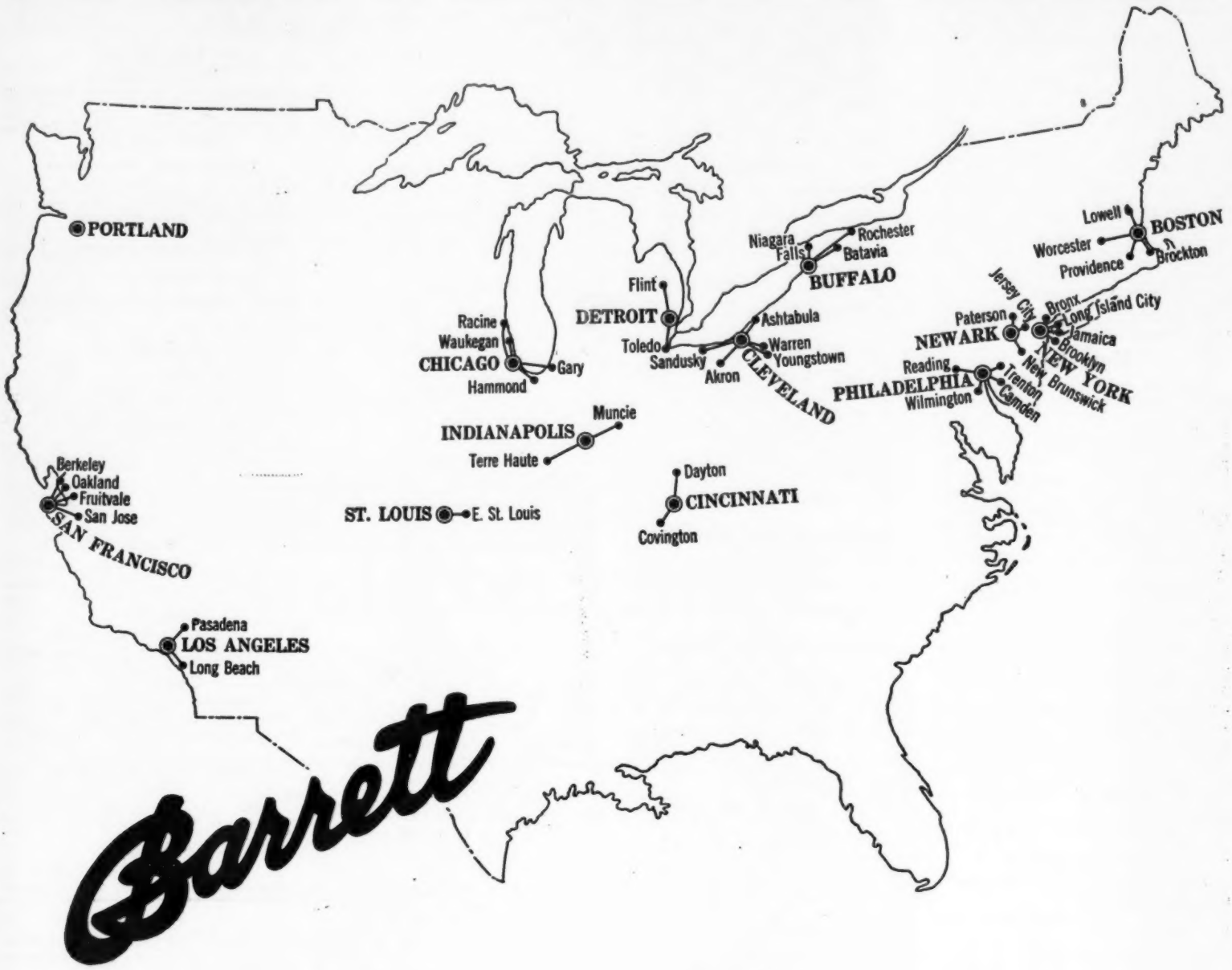
Miller & Graham, 6,000 pounds of white lead, at 9.79c.

Roofing Cement

Big Point Ordnance Depot

Tidewater Supply Company, 2,300 gallons of roof-coating cement, at 20c.

Coast to Coast Producing Points



TANK-WAGON DELIVERIES

COMMERCIAL 90% BENZOL
COMMERCIALLY PURE BENZOL
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Ammonia-Benzol Department

40 Rector Street New York, N. Y.

ANHYDROUS AMMONIA :: AQUA AMMONIA, ALL GRADES :: SULPHATE OF AMMONIA :: ARADIAN NITRATE OF SODA

Coast to Coast Distributing Points

Coaltar Products

Big Improvement in Call for Colors From Silk And Rayon Mills—Benzene, Toluene, and Xylene Continue Firm

A substantial broadening of the scope of activities of the large silk and rayon mills in the Passaic section of New Jersey has prompted a much wider demand for coaltar colors to be used for coloring. All sorts of colors are now being demanded in the textile industry, and this is producing a general feeling of increased optimism throughout the market. One of the interesting developments last week was a substantial increase in the quantities of coaltar intermediates which were being taken for the account of the various dye manufacturers. Moreover, there was a rather good foreign inquiry for intermediates. While a rather wide range prevailed on some colors,, due to competition, the fact was that the principal domestic producers were adhering rather firmly to previous prices on staple products, with the single exception that benzo fast black L could be had for 10c. per pound less than a week ago.

In the market for basic coaltar products the most interesting development was the keener demand for xylol, which some of the lacquer materials manufacturers were utilizing for the purpose of supplementing their light stocks of toluol. A considerable inquiry persisted for benzol, which was being consumed in increasing quantities in the form of motor benzol. Despite the stepping up of production all around, the position of benzol was reported to be about as tight as it had been in a number of months past. The volume of inquiry for solvent naphtha appeared to be a little broader than it had been in a number of weeks. There was also a somewhat better demand evident for naphthalene. Producers were making preparations for the distribution of their October production of toluol.

Current prices on coaltar products, formerly printed on pages 10 and 12, are now printed at the end of this market report.

Price Changes

Prices were changed during the past week as follows:—

Advanced	Reduced
None.	Benzo fast black L., 10c. per lb.

Comparative Values

Index numbers compiled from twenty typical coaltar products on the basis of a normal of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
125.0	125.0	125.0	127.8

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Basic Products

Benzene (Benzol).—A considerable quantity of the benzol which has been moving against contracts of late had passed directly into consumption, resulting in a continued call for additional quantities. At any rate, there was a well sustained rate of activity throughout the market, and producers were holding firmly to their list prices of 22c. per gallon, tanks, works, and 27c. drums, works, both for the 90 percent and pure grades. Representative producers were reported to be making an exhaustive study of the various effects of benzol when utilized in different industries and it was expected that their findings when ultimately released would be of great interest to the trade in general. With September more than half gone, it was possible to estimate that the total steel output for the month would be fully as large as in August, when steel plant operations averaged some 83 percent of capacity. In September a year ago steel plants were only operating at 69 percent of capacity. A temporary decline in steel demand from automobile builders has been more than compensated for through increased buying from railroads and from the building trades. An expansion in the operating schedules of independent steel mills has been seen during the week, so their operations are running slightly in excess of those of steel corporation subsidiaries, which is about 78 percent of capacity. The continuance of ideal motoring weather has made for a persistently lively demand for motor benzol. Prices for the latter were well maintained in all quarters of the trade.

Creosote Oil.—Demand for creosoting purposes continued to reach rather extensive totals. The price situation was quite firm, with dealers quoting 17c. to 18c. per gallon for grade 1 and 14c. to 17c. for grades 2 and 3.

Cresol.—The price range extended from 14c. to 17c. per gallon for U.S.P. grades in drums. A fair demand was reported to be running thereat.

Cresylic Acid.—Since the recent modification in cost of importing this product to about 63c. to 65c. per gallon there have been offerings at prices ranging from 70c. to 73c. per gallon for the 95 to 97 percent dark, and 72c. to 75c. for the 97 to 99 percent pale.

Naphthalene.—A steady condition persisted in this product last week. Adequate stocks of the crude are now obtainable since the import movement via Holland has been showing a steady increase. The regular contract quotations for the flake stood at 5c. per pound, barrels, whereas the balls were being maintained at 6c., also in barrels.

Phenol.—A fairly active contract market was a feature last week. The producers were holding to former prices of 13¼c. per pound in 250-pound drums, car lots, works. When quoted f.o.b. this city the goods took the usual premium of 1c. per pound. For less than car lots the producers' quotations were on a basis of 13½c. per pound in 290-pound drums and 14c. for 250-pound drums, f.o.b. works, while f.o.b. this city 1c. per pound more was quoted.

Solvent Naphtha.—The market was not quite so listless as it had been during the summer months. In fact, moderate sales were going through at the current price basis of 30c. per gallon, tanks, and 35c. for drums.

Tar Acid Oil.—The amount of business passing for the account of the preservative and disinfectant trade was regarded as being about up to normal for this season. Quotations were maintained at 26c. to 27c. per gallon in drums for the 15 percent and 29c. to 30c. for the 25 percent.

Toluene (Toluol).—The September production had been all accounted for and last week the producers were busily engaged allocating the October output. Demand from the manufacturers of lacquer materials continued along extensive lines, and the tone of the market was reported as being generally firm. Prices were 35c. per gallon, tanks, works, and 40c., drums, works.

Xylene (Xylol).—Some of the lacquer materials manufacturers were reported to be supplementing their requirements in toluol by taking on larger supplies of xylol. This led to a fair amount of activity. Producers were quoting 30c. per gallon for the commercial grades in tanks and 35c. in drums, while 10 degrees was quoted at 33c. tanks, and 38c. drums, with 5 degrees held at 40c. tanks and 45c. drums, and nitration at 50c. tanks and 55c. drums.

Chicago Coaltar Bases

CHICAGO, Sept. 20, 1928.

A strong, continuing demand for benzene featured the market for coaltar materials in the past week. The price on this product held firm. Motor fuel requirements were reflected in the demand. Xylene and toluene were in fair demand, with prices hardly so firm as earlier. Solvent naphtha, although in only fair call, held unchanged. Ruling prices per gallon were:—Benzene, 22c.; toluene, 35c.; xylene, 33c.; solvent naphtha, 30c.

Coaltar Acids

Anthranilic.—Jobbing demand appeared to be showing some improvement but actual changes in the position were lacking, producers continuing to quote 98c. to $1 per pound for the refined.

Benzoic.—Trade showed less activity than it had. Some were looking forward to the announcement of 1929 contract prices.

Chlorosulphonic.—The price situation remained steady with producers quot-

Valuable information on Imports and Exports of Coaltar Products is given in port lists beginning on page 5.

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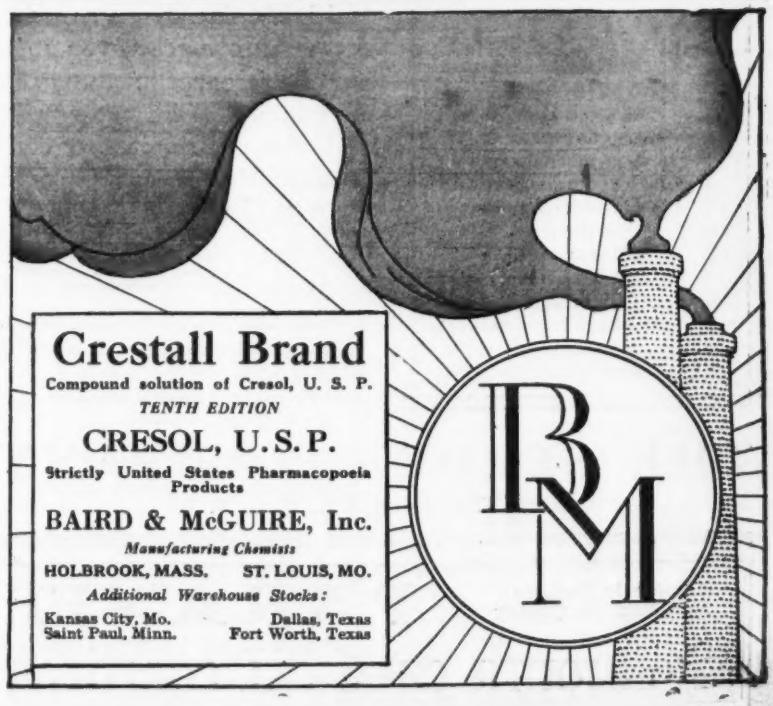

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ing 4½c. to 5½c. per pound in drums depending on quantity.

Cleve's.—There were no changes in this item. Demand was confined to contract withdrawals. Competition has been a factor but it has not produced any price change.

H.—Trade continued along fairly broad lines. Producers were quoting 68c. to 72c. per pound in barrels.

Laurent's.—A steady undertone ruled this product. Prices stood at 40c. to 42c. per pound in barrels.

Neville and Winther's.—Contract shipments were about in normal volume, according to the producers, who indicated that while there had been a period of unsettlement during the summer months the market had again gone back to normal.

Picric.—The call for the lighter dyes made for a steady and continuous demand for this intermediate which was being quoted in leading trade quarters at 30c. per pound car lots, barrels, and from 40c. to $1 for less than car lots.

Salicylic.—The easier position of the raw material was not reflected in this product. The technical grades held within the range of 37c. to 42c. per pound in barrels, and the USP at 40c. to 45c. per pound in barrels.

Intermediates

Alphanaphthol.—A steady condition appeared to be persisting in this item. Producers repeated previous prices of 32c. and 34c. per pound in barrels.

Anilin Oil.—A brisker inquiry has been one of the features of the intermediate division. The price situation remained quite steady at 14½c. per pound for the oil in tanks, whereas in drums a price of 15c. per pound was named. Anilin oil for red was being steadily maintained on the basis of 38c. to 40c. per pound in drums, whereas anilin salt was quoted at 24c. to 25c. per pound in barrels.

Benzidin Base.—Trade in this item was holding up fairly well on the basis of 67c. to 74c. per pound in barrels.

Benzyl Chloride.—The Fall resumption of manufacturing activities in quite a number of trades made for more active conditions. The producers continued to quote 25c. per pound for the technical grades in drums and 30c. to 35c. for the 95 to 97 percent in drums.

Chlorobenzine. — Steady conditions ruled in this intermediate. Inquiry was along somewhat broader lines now that the season of Fall manufacturing activity had arrived.

Dimethylanilin.—This product remained in steady shape with manufacturers reporting continued good contract withdrawals on the basis of 27c. to 28c. per pound in drums.

Dinitrophenol.—Conditions had not changed much during the course of last week's trading, producers continuing to adhere to a basis of 30c. to 34c. per pound in barrels.

G Salt.—A good inquiry persisted last week. Producers were holding out for last prices of 50c. to 52c. per pound in barrels.

Michler's Keytone.—This product remained in steady shape on the basis of $3 to $3.50 per pound in kegs.

Nitrobenzene.—A steady and continuous withdrawal demand for this product was one of the interesting developments in the intermediates. Quotations remained on a basis of 9½c. to 11c. per pound in drums.

Orthodichlorobenzene.—In sympathy with the firm conditions ruling in the primary raw material, producers were adhering strongly to their contract quotations of 8c. to 10c. per pound in drums.

Orthonitrophenol.—Demand has been along broad enough lines from the dye trade to maintain an undercurrent of steadiness in this product. At last accounts the producers were unwilling to listen to offers under 85c. to 90c. per pound in kegs.

Paranitroanilin.—Following the advance in the spot basis to 55c. per pound a week ago, a number of producers have met the higher valuations established on the product. Low contract prices were expected and it was thought they would be announced within another fortnight.

Paranitrophenol.—Prices remained steady at 55c. to 57c. per pound in kegs. A fair inquiry persisted.

Phthalic Anhydride.—A sold up condition prompted a decidedly firm market last week. Quotations stood at 18c. per pound for the technical grades in barrels, and at 20c. to 21c. per pound for the refined, also in barrels.

Xylidin.—The undertone was steady with producers repeating last quotations of 37c. to 39c. per pound in drums.

Coaltar Colors

Activity in the Passaic section was one of the interesting features in the market for coaltar colors during the course of last week's trading. This was largely at the expense of some of the New England cotton mills, who were not operating as actively as is normal at this season of the year. Dye manufacturers pointed to increasing activity among Paterson mills which were operating on tin weighted dress goods fabrics for Fall and Winter wear. The attempt was to weight them up to 40 percent with tin, although in closely posted quarters 25 percent was deemed the maximum. Special light shades of dyes have been worked up which are popular in this class of merchandise. The conspicuous feature of the Fall season to date has been the big call for this class of textiles on which a large number of mills in the Paterson section have been devoting special attention. Competition in some quarters of trade has resulted in an easier tone in benzo fast black L, which was offered down to 90c. to $1.10 per pound in barrels. A wide range of quotations was named for sulphur colors depending on strengths, shades, properties, etc. General demand for dyes gave promise of broadening out further on the approach of the Fall season.

Current Prices

(For late price changes, see page 2)

Basic Products

Benzene (benzol), 90 p.c., works, drums	gal.	.27 @	.28
tanks	gal.	.22 @	.23
nitration, works, drums	gal.	.30 @	—
tanks	gal.	.25 @	—
pure, works, drums	gal.	.27 @	.28
tanks	gal.	.22 @	—
Carbazole, barrels	lb.	.45 @	.50
Coaltar, barrels	bbl.	9.00 @	9.50
Creosote oil, grade I, works, tanks	gal.	.17 @	.18
II, works, tanks	gal.	.14 @	.15
III, works, tanks	gal.	.14 @	.15
Cresol, U.S.P., drums	lb.	.14 @	.17
Cresylic acid, 95@97 p.c., dark, drums	gal.	.70 @	.72
97@99 p.c., pale, drums	gal.	.72 @	.75
Dip oil, 25 p.c., drums	gal.	.28 @	.30
Naphthalene, ball, barrels	lb.	08 @	.07
crude, bags	lb.	.02¼@	.02¾
dyestuff, bags	lb.	.04½@	.05
flake, barrels	lb.	.05 @	.06½
Orthocresol, drums	lb.	.18 @	.28
Phenol, U.S.P., works, car lots, 250-lb. drums	lb.	.13¼@	—
Pyridin, drums	gal.	1.35 @	1.50
Solvent naphtha, water white, works, drums	gal.	.35 @	—
tanks	gal.	.30 @	—
Tar Acid oil, 15 p.c., drums	gal.	.26 @	.27
25 p.c., drums	gal.	.29 @	.30
Toluene (toluol), pure, works, drums	gal.	.40 @	—
tanks	gal.	.35 @	—
Xylene (xylol), 5 deg., works, drums	gal.	.45 @	—
tanks	gal.	.40 @	—
10 deg., works, drums	gal.	.38 @	—
tanks	gal.	.33 @	—
commercial, works, drums	gal.	.35 @	—
tanks	gal.	.30 @	—
nitration, works, drums	gal.	.55 @	—
tanks	gal.	.50 @	—

Acids

Anthranilic, refined, barrels	lb.	.98 @	1.00
technical, barrels	lb.	.80 @	—
Benzoic, technical, kegs	lb.	.57 @	.58
U.S.P., kegs	lb.	.60 @	.61
Broenner's barrels	lb.	1.25 @	—
Chlorosulphonic, drums	lb.	.04½@	.05¼
Cleve's, barrels	lb.	.52 @	.54
Gamma, barrels	lb.	.97 @	.99
H, barrels	lb.	.68 @	.72
Laurent's, barrels	lb.	.40 @	.42
Monosulphonic, barrels	lb.	1.65 @	1.70
Naphthionic, barrels	lb.	No stocks	
Neville and Winther's, barrels	lb.	.85 @	.87
Phenylcinchoninic, tins	lb.	4.70 @	5.00
Picramic, kegs	lb.	.65 @	.70
Picric, car lots, barrels	lb.	.30 @	—
less than car lots	lb.	.40 @	1.00
Salicylic, technical, barrels	lb.	.37 @	.42
U.S.P., barrels	lb.	.40 @	.45
Sulphanilic, barrels	lb.	.15 @	.16
Tobias, barrels	lb.	.85 @	—

Intermediates

Alphanaphthol, refined, bbls.	lb.	.80 @	.85
technical, barrels	lb.	.60 @	.65
Alphanaphthylamine, barrels	lb.	.32 @	.34
Anilin oil, drums	lb.	.15 @	.16
tanks	lb.	.14½@	.15
oil for red, drums	lb.	.38 @	.40
salt, barrels	lb.	.24 @	.26

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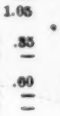

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U.S.P., IX, drums	lb.	1.15 @	1.20
U.S.P., X, drums	lb.	1.25 @	1.30
Benzidin, base, barrels	lb.	.67 @	.74
Benzoyl chloride, drums	lb.	1.00 @	1.05
Benzyl chloride, 95@97 p.c., refined, drums	lb.	.30 @	.35
technical, drums	lb.	.25 @	—
Betanaphthol, sublimed, barrels	lb.	.55 @	.60
technical, car lots	lb.	.22 @	—
less car lots	lb.	.24 @	—
Betanaphthylamine, sublimed, kegs	lb.	1.25	Nom.
technical, kegs	lb.	.65 @	.68
Chlorobenzene, drums	lb.	.08½@	.09½
Dianisidin, barrels	lb.	2.80 @	—
Diethylaniline, drums	lb.	.55 @	.60
Diethylorthotoluidin, drums	lb.	.64 @	.67
Dimethylaniliin, drums	lb.	.27 @	.28
Dinitrobenzene, barrels	lb.	.15½@	.16½
Dinitrochlorobenzene, barrels	lb.	.13 @	.14
Dinitronaphthalene, kegs	lb.	.35 @	.38
Dinitrophenol, barrels	lb.	.80 @	.84
Dinitrotoluene, drums	lb.	.17 @	.18
Diphenylamine, barrels	lb.	.42 @	—
Ethylidin aniiin, drums	lb.	.60 @	.65
Ethylbenzylaniiin, drums	lb.	.97 @	1.00
G salt, barrels	lb.	.50 @	.52
Hexalin, drums	lb.	.68 @	—
Metanitroaniiin, kegs	lb.	.72 @	.75
Metanitroparatoluidin, barrels	lb.	1.70 @	1.80
Metaphenylenediamine, kegs	lb.	.84 @	—
Metatoluylenediamine, kegs	lb.	.70 @	—
Methylanthraquinone, kegs	lb.	.85 @	.95
Michler's ketone, kegs	lb.	3.00 @	8.50
Mixed toluidin, drums	lb.	.30 @	—
Monochlorbenzene, drums	lb.	.10 @	.10¼
Monoethylaniiin, drums	lb.	1.05 @	1.08
Monoethylortholuidin, drums	lb.	.70 @	.75
Monomethylparaminosulphate, drums	lb.	3.75 @	4.00
Nitrobenzene, drums	lb.	.09½@	.11
Nitronaphthalene, barrels	lb.	.25 @	—
Nitrotoluene, drums, works	lb.	.14 @	.15
Orthoaminophenol, barrels	lb.	2.15 @	2.25
Orthoanisidin, barrels	lb.	2.50 @	2.75
Orthochlorphenol, drums	lb.	.50 @	.65
Orthodichlorobenzene, drums	lb.	.08 @	.10
Orthonitrochlorobenzene, kegs	lb.	.30 @	.32
Orthonitroparachlorphenol, tins	lb.	.70 @	.75
Orthonitrophenol, kegs	lb.	.85 @	.90
Orthonitrotoluene, drums	lb.	.16 @	.18
Orthotoluenesulphonate, kegs	lb.	2.00 @	2.05
Orthotoluidin, drums	lb.	.25 @	.29
Para-aminoacetanilide, kegs	lb.	1.05 @	1.10
Para-aminophenol base, barrels	lb.	1.00 @	1.08
hydrochloride, barrels	lb.	1.25 @	1.30
Parachlorphenol, drums	lb.	.60 @	.65
Paradichlorobenzene, drums	lb.	.18 @	—
Paranitroacetaniiide, kegs	lb.	.52 @	.54
Paranitroaniiin, kegs	lb.	.55 @	—
Paranitrochlorobenzene, kegs	lb.	.23 @	.26
Paranitrophenol, kegs	lb.	.55 @	.57
Paranitrotoluene, kegs	lb.	.29 @	.31
Paraphenylenediamine, barrels	lb.	1.15 @	1.20
Paratoluenesulphonamide, barrels	lb.	.70 @	.75
Paratoluidin, casks	lb.	.38 @	.42
Phthalic anhydride, refined, barrels	lb.	.20 @	.21
technical, barrels	lb.	.18 @	—
R salt, barrels	lb.	.44 @	.48
Resorcinol, technical, cans	lb.	1.25 @	1.30
Schaeffer's salt, kegs	lb.	.53 @	.57
Sodium metanilate, kegs	lb.	.70 @	.75
naphthionate, bottles	lb.	.55 @	.57
picramate, kegs	lb.	.69 @	.72
Tetralin, drums	lb.	.20 @	—
Thiocarbanilide, drums	lb.	.23 @	.24
Toiidin base, kegs	lb.	.86 @	.90
distilled	lb.	.91 @	.95
Xylidin, drums	lb.	.37 @	.39

Coaltar Colors

Color Index No.		Per pound.	
10	Naphthol yellow S	1.35 @	1.40
20	Chrysoidine Y	.50 @	.55
24	Sudan I	1.00 @	1.25
27	Orange G	.60 @	.75
31	Amido naphthol red G	.50 @	.55
36	Chrome yellow 2G	.65 @	.70
40	Chrome yellow R	.50 @	1.00
53	Victoria violet	.80 @	1.00
57	Amido naphthol red 6B	.35 @	.40
73	Sudan II	1.00 @	1.25
79	Ponceau 2R	.50 @	.60
88	Bordeaux B	.90 @	.95
138	Metanil yellow	.70 @	.80
151	Orange II	.25 @	.35
165	Lake red C	1.15 @	1.25
176	Fast red A	.65 @	.75
179	Azo rubine	1.00 @	1.05
180	Fast red VR	1.50 @	1.65
189	Lake red R, paste	.85 @	.90
189	Lake red R, powdered	3.00 @	3.10
202	Chrome blue black U	.45 @	.50
204	Chrome black A	1.75 @	2.00
208	Fast acid blue R	.75 @	2.00
216	Chrome red B	1.75 @	2.00
234	Resorcin brown B	.75 @	.80
235	Resorcin dark brown	.75 @	.80
246	Acid black 10B	.50 @	.70
252	Brilliant croceine	.90 @	1.00
258	Sudan IV	1.00 @	1.25
262	Cloth red 2B	.60 @	.80
289	Fast cyanine 5R	.90 @	1.00
299	Chrome black F	.45 @	.50
307	Fast cyanine black B	.80 @	.85
326	Direct fast scarlet	2.00 @	2.25
331	Bismarck brown	.40 @	.45
332	Bismarck brown 2R	.40 @	.45
364	Paper yellow	.50 @	.90
365	Chrysophenine G	.50 @	.60
382	Direct scarlet B	2.00 @	2.10
387	Direct violet B	1.00 @	1.30
394	Direct violet N	1.25 @	1.30
401	Developed black BHN	.80 @	1.00
406	Direct blue 2B	.25 @	.30
415	Direct orange R	.75 @	.90
419	Direct fast red F	.75 @	.85
420	Direct brown M	1.00 @	1.15
448	Benzo purpurine 4B	.35 @	.50
495	Benzo purpurine 10B	.50 @	.75
502	Direct azurine G	.75 @	.80
512	Direct blue RW	.80 @	1.00
518	Direct pure blue 6B	1.10 @	1.25
520	Direct pure blue	.25 @	3.00
539	Direct fast black FF	.75 @	1.00
581	Direct black EW	.25 @	.50
582	Direct black RX	.35 @	.45
593	Direct green B	.75 @	.90
594	Direct green G	1.00 @	1.05
596	Direct green 3GO	.35 @	1.00
620	Direct yellow R	1.25 @	1.50
636	Fast light yellow 2G	3.00 @	3.25
666	Acid Green B	1.50 @	1.75
680	Methyl violet	2.00 @	2.25
698	Acid violet	1.00 @	3.00
793	Phosphine	1.50 @	1.55
812	Primuline	.80 @	.90
814	Direct fast yellow	2.00 @	2.25
865	Nigrosine (water soluble)	.50 @	.55
	Sulphur black	.20 @	.25
	Sulphur blue	.50 @	1.50
	Sulphur brown	.25 @	1.00
	Sulphur maroon	.80 @	1.25
	Sulphur olive	.25 @	.50
	Sulphur tan	.50 @	1.00
	Sulphur yellow	.75 @	2.00
1177	Indigo, 20 p.c. paste	.15 @	.18
	Benzo fast black L	.90 @	1.10
	Zambesi blacks	.75 @	1.00

R. H. Grobe, assistant manager of the ammonia-benzol department of the Barrett Company, this city, is spending his vacation in Bermuda.

Exports of benzene from the Netherlands amounted to 5,590 tons in the first seven months of 1928, compared with 4,160 tons in the corresponding period of 1927.

The American Tar Proudcts Company, Pittsburgh, has filed a complaint with the Interstate Commerce Commission attacking the freight rates on carload shipments of crude water tar from Chicago, St. Louis, and various points in Indiana, to Woodward, Ala. The complaint states that this commodity is used in making road tar which is shipped throughout the Southern States in competition with paving asphalt.

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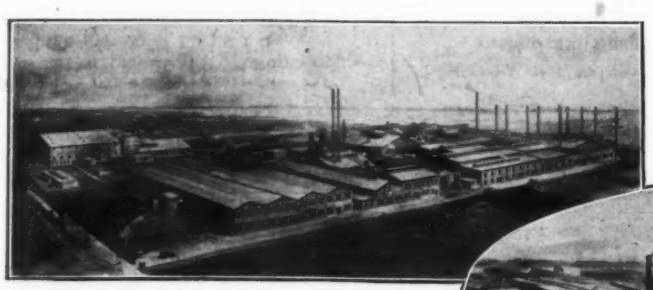

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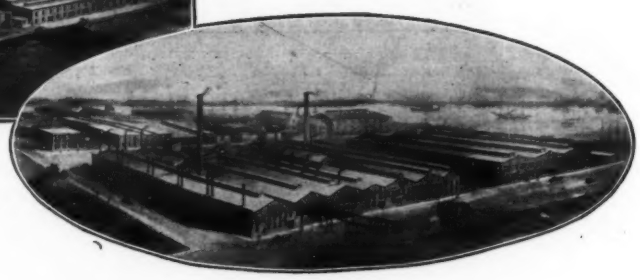

BALTIMORE

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Dyestuffs and Tanstuffs

Mangrove Bark Advances Although Other Natural Tanning Products Rule Steady—Egg Products and Cochineal Firm

Dealers and importers of natural products utilized for dyeing and tanning were looking forward to a marked expansion in the volume of bookings now that the Fall season was at hand but this condition was perhaps more potential than real last week. While evidences were not lacking of a substantial increase in activity in the shoe and leather trades, as well as in some quarters of the textile trade where natural dye materials are still being utilized, it was difficult to single out any one commodity that had been conspicuously active. In fact, the tendency in most consuming quarters appeared to be to wait out the market, until definite assurances were had that the existing stability of most products would continue.

A glance at the list of tanning materials revealed few changes, other than an advance of $1 per ton in shipment quotations for mangrove bark from Africa. Valonia had been lowered in the preceding week to $66 per ton for the 40 percent beards, and $55 to $56 for the mixtures, and a fair amount of general inquiry developed at this basis. A good business appeared to be in progress in chestnut extracts for the account of the tanners with more than the usual amount of interest shown in the powdered grades. Cutch and gambier were unchanged so far as prices were concerned, but there seemed to be signs of increased consumer interest. A fair amount of trading was uncovered in cochineal and the tone has ruled strong since the recent sharp advance in replacement costs from the Canary Islands.

The observance of candy week October 7 to 13 was expected to stimulate a wider interest in Chinese egg products, particularly albumen. As the season of heaviest shipments from the Far East had virtually terminated there was an outlook for somewhat lower prices. Corn starches and dextrins were being strongly maintained because a covering movement in the grain market sent cash corn back to the record high levels which had ruled last Spring. The market may develop reactionary tendencies later on, however, when the new crop becomes available. The producers of bichromates were having a busy time keeping abreast of the demand for contract deliveries. The photographic industry was taking the usual quotas of soda hyposulphite.

Price Changes

Prices were changed during the past week as follows:—

Advanced	Reduced
Mangrove bark, $1 per ton.	None.

Comparative Values

Index numbers compiled from nineteen typical dyestuffs and tanstuffs on the basis of a normal of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
157.8	157.8	158.1	167.6

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Chemicals

Aluminum Chloride.—In the absence of any change in quotations for the metal, which has been quoted at 24.3c. per pound over a period of months, the tone of the chloride remained steady, with fair deliveries the rule on the basis of 3c. to 3¼c. per pound in drums, works.

Antimony Salt.—The textile and tanning trades were taking the usual quotas of this chemical on the basis of 25½c. to 26c. per pound. A fair amount of business was reported to be in negotiation.

Potash Bichromate.—Contract deliveries were keeping well up to the totals of a year ago. Quotations of 8¾c. per pound in casks, and up to 9c. for smaller quantities were being maintained. The trade were looking forward to the time when 1929 contracts would be announced, but it was still too early to expect definite action along these lines.

Soda Bichromate.—The amount of contract business passing at current contract basis of 7c. per pound, car lots, casks, and 7¼c. per pound, less than car lots, casks, compared favorably with previous corresponding periods. Both the export and domestic outlets were about as satisfactory as could be expected at this season of the year.

Soda Hyposulphite.—The textile, leather, paper and photographic industries were apparently taking the usual quotas of this product against contracts outstanding on the basis of $2.40 to $2.75 per 100 pounds for the crystals in barrels, $2.50 to $3 for the pea crystals, and $2.75 to $3 per 100 pounds for the granular.

Dyestuffs

Annatto.—Not much activity was reported for the account of any division of the dye trade last week. Prices were not altered.

Archil.—Interest appeared to be along limited lines. There had been reviving activity in some textile lines, but it was not broad enough to result in any great increase in the general contract movement.

Current prices on dyestuffs and tanstuffs, formerly printed on page 12, are now printed at the end of this market report.

Camwood.—Inquiries have been somewhat more numerous, but the general market was without much change. Last offers of the ground bark were 18c. per pound in barrels.

Cochineal.—Since European buyers were paying better prices for the product to shippers in the Canary Islands than it was possible to secure here, there was a suggestion of a firmer market in the making. In fact, a few holders were quoting a minimum of 96c. to 98c. per pound for the Teneriffe silver grade. Stocks of the black variety had been taken up some time ago, and prices were regarded as nominal. The gray appeared to be going hand in hand with the silver.

Fustic.—This product was meeting a substantial contract movement. Steady shipments of the logs were being made from the Latin American markets on the basis of $25 to $26 per ton occasioning no change from the steady conditions which have surrounded the extracts ever since the first of the year.

Hypernic.—Supplies of the raw material were reaching the extract manufacturers in virtually normal quantities for this season of the year. Accordingly there was no suggestion of a change either in the liquid or solid extract.

Indigo.—The contract movement in the synthetic continued to overshadow that in the natural product. The amount of business moving compared rather well with that of corresponding periods.

Logwood.—A fairly active contract movement was in progress for the account of the dye trade. Haitian sticks were being maintained at $24 to $25 per ton for shipment. There was no change in the crystal or liquid extract.

Madder, Dutch.—Quotations remained at 22c. to 25c. per pound in bags. Trade was fair.

Osage Orange.—The improvement in various branches of the textile and tanning industries has resulted in larger contract shipments.

Quercitron.—This division had not changed much last week. Producers said business was keeping up fairly well at 5½c. to 6c. per pound for the 51 degrees liquid extract, and 9½c. to 10c. for the solid extract.

Sizing Materials

Albumen.—A fair amount of business continued to reach dealers. Arrivals from the interior of China have been showing a tendency to decline of late due no doubt to the fact that the season in China has practically run its course. The quotation for blood was firmly held on basis of 43c. to 48c. per pound in barrels, whereas the edible egg varieties were quoted at 80c. to 85c. per pound in cases.

Dextrin.—Interest generally centered in the precipitate upward movement in September corn, which as a result of short covering operations, was run up over 12c. per bushel from the

Valuable information on Imports and Exports of Dyestuffs and Tanstuffs is given in port lists beginning on page 5.

Uniformity

of our product is always strictly maintained and is made possible by our close control of all manufacturing details.

Ultimately you will specify

Natural Bichromates

Natural Products Refining Co.

Jersey City, N. J.

previous week to $1.03⅜, the highest levels since last June. Leading bull interests in corn had handled the market with more than the usual amount of skill, having held their cash corn, of which there were not more than 5,000,000 bushels out, at good premiums. A decline of some 314,000 bushels in the visible supplies of corn was smaller than expected, but placed the total stocks at 7,862,000 bushels, against 22,694,000 bushels last year. The producers of dextrin maintained their price at $5.02 to $5.22 per 100 pounds for the British gum in bags, while quoting corn starch at $4.77 to $4.97. Fair arrivals of European potato starches were noted, but they did not affect values.

Egg Yolk.—There appeared to be rather plentiful supplies of egg spray which could be had at from 74c. to 76c. per pound in cases. The granular yolk was maintained at 68c. to 70c. per pound in cases. Since shipments from the Chinese markets for the season to date have been larger than during the corresponding period of a year ago, there was a suggestion of an easier market in the making.

Starches.—The excitement in September corn, in the course of which operators for a decline ran to cover, resulting in a net appreciation of over 12c. per bushel, had the effect of checking what was believed to be a downward trend in the finished product. The actual price basis for pearl corn starch was $3.97 to $4.17 per 100 pounds in bags, whereas the powdered grades were quoted at $4.07 to $4.27 per 100 pounds in bags. In contrast with the strong position of cash corn there was weakness in the deferred deliveries, as weather conditions in the corn belt had been favorable for maturing the crop. It was believed that crop failures abroad would produce a more liberal foreign inquiry for the cereal. There were fairly large arrivals of potato starches from Norway, but they had not influenced the course of the market.

Tapioca Flour.—Notwithstanding that importations from the Far East have continued along fairly liberal lines, there was no change from the ruling price basis of 3¼c. to 5½c. per pound in bags.

Tanning Materials

Chestnut.—The dry powdered grades were meeting a fairly good local consumption and were firmly maintained at 4¼c. per pound f.o.b New Orleans works. Foreign buying was only being done in moderate volume. The 25 percent clarified extract was firmly held at 1½c. to 1¾c. per pound in tanks, and at 2c. to 2½c. per pound in barrels.

Cutch.—The condition of shortage which had been apparent in this product for a number of weeks past had not changed. Last offers of the Borneo grades were on the basis of 7½c. to 8¼c. per pound in bales, whereas the Rangoon descriptions were quoted at 14c. to 16c. per pound in boxes.

Divi-Divi.—The advance within the past fortnight to a basis of $58 per ton had not provoked any widespread interest in the product. As a matter of fact the amount of buying which had been done for the account of tanners within the past few weeks has been limited.

Gambier.—The recent downward trend of the market had not been productive of much new inquiry. Common grades were being maintained at 5¼c. to 6c. per pound in bags, whereas plantations were quoted at 7¾c. to 7⅞c. per pound in bags and Singapore cubes at 8½c. to 9c.

Mangrove.—In advance in the amount of $1 per ton to $38 for shipment from Africa was one of the features of this product last week.

Myrobalans.—Steady conditions ruled in the primary markets in India. However, the tanners were showing an indifference to the latest shipment quotations of $45 per ton for the J1's and $34 to $35 per ton for the J2's.

Nutgalls.—The amount of buying in progress for the account of this tanning and textile industries was rather limited. Quotations for the Aleppo grades were repeated on the basis of 20c. to 22c. per pound in bags, whereas the Chinese varieties were held at 13c. to 14c. per pound in cases.

Quebracho.—The textile and leather industries had been taking contracts freely for some time past. The tone of the market was a steady one, the principal producers quoting 3¼c. to 3½c. per pound for the 35 percent liquid extract, whereas the clarified 64 percent was held at 5⅝c. per pound, and the solid 63 percent at 5¼c. to 5⅜c. per pound. An uninterrupted import movement from the Argentine continued as a feature of the market.

Sumac.—No suggestion of any deviation from the ruling price basis of $60 to $65 per ton for shipment from Sicily came under review last week. A speeding up of operations in some branches of the shoe and leather industry may stimulate buying of the product. Nothing definite was heard with respect to the size of the crops last week.

Valonia.—The outlet in the tanning industry was about as large as could be anticipated. However, there seemed to be some aversion on the part of the trade toward taking on very substantial quantities at this time. The minimum quotation on 40 per cent beards was $66 per ton for shipment, whereas mixtures were not obtainable under $54 per ton for shipment.

Wattle Bark.—The recent decline to $55 per ton had not produced much new buying.

Current Prices

(For late price changes, see page 2)

Chemicals

Aluminum chloride, 33@35 p.c., works, drums	lb.	.03 @	.03¼
Antimony salt, 66 p.c., tins	lb.	.25½@	.26
Iron nitrate, commercial (see Industrial chemicals).			
Potash bichromate, casks	lb.	.08¾@	.09
prussiate (see Industrial Chemicals).			
Soda bichromate, casks	lb.	.07 @	.07¼
hydrosulphite, barrels	lb.	.23 @	.25
hyposulphite, crystals, barrels, 100 lbs.		2.40 @	2.75
pea, barrels	100 lbs.	2.50 @	3.00
granular, barrels	100 lbs.	2.75 @	3.25
phosphate, commercial (see Industrial Chemicals).			
prussiate (see Industrial Chemicals).			
Tin crystals (see Industrial Chemicals).			
Turkey red oil, 50 p.c., barrels or drums	lb.	.09 @	.11
75 p.c., barrels or drums	lb.	.12 @	.14
Zinc dust (see Industrial Chemicals).			

Dyestuffs

Annatto paste, boxes	lb.	.34 @	.37
seed, boxes	lb.	.07½@	.07⅞
Archil extract, concentrated, barrels	lb.	.17 @	.19
double, barrels	lb.	.12 @	.14
Barwood (see red sanders wood).			
Brazil-wood extract (see hypernic).			
sticks, shipment	ton.	26.00	@28.00
Camwood bark, ground, barrels.	lb.	.18 @	—
Cochineal gray, bags	lb.	.95 @	—
black	lb.	None.	
Teneriffe silver, bags	lb.	.95 @	—
Cudbear, powdered, brands	lb.	.11 @	.23
Fustic, extract, crystals, barrels, regular	lb.	.18 @	.22
liquid, 51 deg., barrels	lb.	.08 @	.10
42 deg., barrels	lb.	.07 @	.09
solid, drums	lb.	.14 @	.16
sticks, shipment	ton.	25.00	@26.00
Hematine, crystals, barrels	lb.	.14 @	.18
Hypernic, solid, drums	lb.	.17 @	.20
liquid, 51 deg., barrels	lb.	.11 @	.15
Indigo, Madras, barrels	lb.	1.26 @	1.29
synthetic, liquid, barrels	lb.	.12 @	—
Logwood extract, crystals, barrels	lb.	.14 @	.18
liquid, 51 deg., barrels	lb.	.07 @	.08¼
solid, boxes	lb.	.12 @	.14
sticks, Haitian, shipment	ton.	24.00	@25.00
Madder, Dutch, bags	lb.	.22 @	.25
Osage orange extract, liquid, 51 deg., barrels	lb.	.06¾@	.07¼
Persian berry extract, barrels	lb.	.25	Nom.
Quercitron extract, liquid, 51 deg., barrels	lb.	.05½@	.06
solid, drums	lb.	.09½@	.10
Red sanders wood, ground, barrels	lb.	.18 @	—
Turmeric (see Botanical Drugs).			

Sizing Materials

Albumen, blood, barrels	lb.	.43 @	.48
egg, edible, cases	lb.	.80 @	.85
Dextrin, British gum, bags	100 lbs.	5.02 @	5.22
corn, bags	100 lbs.	4.77 @	4.97
potato, imported, bags	lb.	.08 @	.09
Egg yolk, granular, cases	lb.	.68 @	.70
spray, cases	lb.	.74 @	.76
Sago flour, bags	lb.	.04¼@	.05½
Starch, corn, pearl, bags	100 lbs.	3.97 @	4.17
powdered, bags	100 lbs.	4.07 @	4.27
potato, domestic, bags	lb.	.05¾@	.06¼
imported, bags	lb.	.06 @	.06½
rice, barrels	lb.	.09 @	.10
wheat, bags	lb.	.06¼@	.10½
Tapioca flour, bags	lb.	.03¼@	.05½

Tanning Materials

Chestnut extract, clarified, 25 p.c., tannin, barrels	lb.	.02 @	.02¼
tanks	lb.	.01¼@	.01⅜
powdered, f.o.b. works	lb.	.04¼@	—
Cutch, Borneo, bales	lb.	.07½@	.08½
Rangoon, boxes	lb.	.14 @	.16
Divi-divi, shipment, bags	ton.	58.00 @	—
extract, 25 percent tannin, barrels	lb.	.05 @	.05¼
Gall extract, barrels	lb.	.18 @	.20
Gambier, common, bags	lb.	.05¼@	.06
extract, 25 percent tannin, barrels	lb.	.08 @	.10
plantation, bags	lb.	.07¾@	.07⅞
Singapore, cubes, bags	lb.	.08½@	.09
Hemlock extract, 25 p.c. tannin, barrels	lb.	.03¾@	.04¼
Mangrove bark, African, shipment	ton.	38.00 @	—
Myrobalans, J1, shipment, bags,	ton.	45.00 @	—
J 2, shipment, bags	ton.	34.00	@35.00
extract, liquid, 25 p.c., barrels,	lb.	.03¾@	.04¼
powdered, 53 p.c., barrels	lb.	.05 @	.05¼
Nutgalls, Aleppo, bags	lb.	.20 @	.22
Chinese, shipment, cases	lb.	.13 @	.14
Oak bark extract, 25 p.c. tannin, barrels	lb.	.04 @	.04½
Quebracho extract, solid, 63 p.c. tannin, barrels	lb.	.05¼@	.05⅝
clarified, 64 p.c.		.05⅝@	—
liquid, 35 p.c., barrels	lb.	.03¼@	.03½
Spruce extract, 25 p.c. tannin, barrels	lb.	.01½@	.02
powdered, barrels	lb.	.02½@	.03
Sumac, domestic, f.o.b. South. bags	ton.	35.00 @	—
extract, 42 deg., barrels	lb.	.05½@	.06½
Sicilian, ground, shipments, bags	ton.	60.00	@65.00
extract, stainless, barrels	lb.	.10 @	.11
Valonia beards, 40 p.c., shipment, bags	ton.	66.00 @	—
cups, shipment, bags	ton.	No stocks	
mixtures, shipments, bags	ton.	54.00 @	—
Wattle bark, shipment, bags	ton.	55.00 @	—

N.P.A. Meeting

(Continued from page 54)

daily domestic production of the United States is, in round numbers, about 2,500,000 barrels. By competitive drilling methods employed by the industry only a year or two ago and considered one of its inevitable practices, it has been estimated that this production might be increased to perhaps 5,000,000 barrels per day within a comparatively short time.

The success of recently adopted methods of locating probable oil bearing structures, such as geophysical exploration, is indicative of potential overproduction for a prolonged period of time.

During the months of the summer just past there has been a substantial balance between supply and demand for petroleum. In May there was a surplus of about 1,000,000 barrels, in June and July a draft upon stocks of about 500,000 barrels and 1,100,000 barrels respectively. Present indications are that in view of recent increases in production and the lowering of the seasonal demand which is in prospect, there will be a period of oversupply in the near future even under the restrictions issued by public authorities in Texas and Oklahoma.

Any substantial increase in the present production of crude oil would be disastrous to the industry and greatly impair its ability to serve the public, quite apart from the wastes of gas and gas pressure which might be attendant upon it.

Intelligent leadership, influenced by a better knowledge of scientific facts, and recognizing the force of economic compulsion, has brought the oil industry—not to the verge of regulation, but certainly to an era in which "government and business" have joined forces "to work out this problem of practical conservation."

There is no desire on our part to predict the future events of this new era. Assuming a legal sanction for the necessary cooperation between units in the industry or resort, as at present, to restriction of drilling by the order of a state commission, there will clearly be required in the industry a high order of economic leadership, involving a vision of the welfare of the whole industry and consistent regard for the public interest. But we do venture to predict that there will be less fear of the part to be played by federal and state governments in protecting the welfare of the industry and of the public. If events bring about an increase of official authority it will be found that the industry, by a straightforward presentation of its facts can protect itself and secure a sound, stable prosperity.

The twenty-sixth annual meeting of the National Petroleum Association was then declared adjourned.

Allen Promoted by du Pont

E. I. du Pont de Nemours & Co. directors September 17 increased its executive committee from seven to eight members and elected William P. Allen, general manager of its paint, lacquers and chemicals department to fill the newly created position.

J. S. Dean was elected an assistant treasurer at the same meeting.

Ichthyol Trade-Mark Is Upheld by Italian Court

The Court of Cassation in Rome, the highest court in Italy, has sustained the right of the Ichthyol Company to the trade-mark, "Ichthyol," against the designations, "Ittiolo," "Ittiolo sulfo ammonio," and "Ittiolo Para," under which an Italian concern had been marketing a similar product. The highest court's decision upheld that of the Appellate Court of Mailand, in which the Ichthyol Company had instituted a suit for injunction and damages.

It is particularly interesting to note that not even the addition of the word "pari" ("substitute" or "equivalent") was accepted as a sufficient defense against what the Mailand court called "the appropriation of a reputation."

John R. Anderson, of John R. Anderson & Co., shellac broker, this city, has returned after two weeks at Lake Placid.

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12 GOLD STREET - - NEW YORK

Sunflower Seed Estimate

Sunflower seed production is expected to be slightly larger than last year, according to the United States Bureau of Agricultural Economics. Smaller production in Missouri is expected to be offset by larger crops in California and Illinois. The carryover in all sections was reported as smaller than usual. Opening prices were about the same as a year ago in California and slightly higher in Missouri. In most European countries carryover is regarded to be of fair size but a large percentage is of low quality.

Acreage of sunflower seed in Missouri is expected to be about the same as last year but yield per acre is expected smaller. Production is estimated at about 2,500,000 pounds, compared with 3,500,000 last year. Harvesting was beginning the first two weeks of September, which was a month to six weeks earlier than last year, when it was unusually late. The crop is expected to be ready for market about October 15. Additional acreage was planted but a large percentage was lost on account of excessive rainfall in June, which was especially destructive to the early plantings.

Acreage in Illinois was nearly doubled in the district in the central part of the State, but fell off sharply in the Southern district on account of weevil attacks. Growing conditions were favorable in the central part of the State. Yields were not determined as the plants were in bloom on September 1, with the earliest beginnig to stripe, but production is expected to be larger than last year, which was estimated to be 750,000 pounds.

The crop in California, estimated at about 4,500,000 pounds, compared with 3,500,000 last year, is the largest in eight years or more. Larger production was due to the increased acreage in the delta land south and west of Stockton and in smaller increases in the Modesto and Woodland districts. Harvesting began about September 1 and about 75 percent of the crop had been contracted for at $4 per 100 pounds to the grower, or the same as last year.

Dye Exports in July

Exports of dyes from the United States during July amounted to 3,817,095 pounds, valued at $779,530, compared with 1,525,751 pounds, valued at $331,387, last year, according to the United States Department of Commerce.

The total for the first seven months of 1928 comes to 15,000,000 pounds, worth $3,500,000, a 10 percent increase in quantity, but a 16 percent increase in value over the same period last year. China's purchases represented two-thirds of the total quantity shipped, or 10,259,765 pounds, valued at $1,346,588. The country to take the next largest quantity was Canada who imported 1,573,867 pounds, valued at $594,860, but Japan's imports, though smaller in quantity, 868,588 pounds, were higher in value, $671,880. British India took 881,660 pounds, valued at $385,104. Other countries who purchased more than $40,000 worth were Belgium, Brazil, Mexico, Hongkong, Cuba, Argentina and Germany. The last-named country took 145,598 pounds, valued at $44,325.

National Lead Golfers Play at Canoe Brook

The annual golf tournament of the metal and paint divisions of the Atlantic Branch, National Lead Company, was held at the Canoe Brook Country Club, Summit, N. J., September 21. There were twenty-eight department heads and salesmen at the tuornament.

Chauncey Heim and E. T. Merrick, both of the metal department, were tied for low net with 78. They putted for 9 holes to break the tie, Mr. Merrick finally emerging the victor.

A. W. Scott, of the company's San Francisco office, was a guest at the outing.

H. G. Sidford, manager of the Atlantic Branch, was host to the party, and presented the prizes at a dinner in the evening.

Linseed Oil Freights Complaint Dismissed

WASHINGTON, Sept. 21, 1928.

The Interstate Commerce Commission today dismissed the complaint of the Peaslee-Gaulbert Company of Georgia which attacked the freight rate on carload shipments of linseed oil from Minneapolis to Atlanta.

The present rate of 114 cents per 100 pounds is based on the fifth class rate in Southern classification. The complaint sought a rate of 76 cents per 100 pounds, formed by using the commodity rates for vegetable oils in Southern territory. The commission found that shipments of linseed oil in the South are a small percentage of the shipments of cottonseed and other vegetable oils taking the low commodity rate and declared that it has been its policy, in vegetable oil cases, not to apply a territorial commodity rate for inter-territorial shipments. Chairman Campbell dissented from the majority opinion, declaring that there is no reason from a transportation standpoint why linseed oil should not take as low a rate as cottonseed oil.

Scott & Bowne Denied Registration of Trade Mark

WASHINGTON, Sept. 21, 1928.

The United States Patent Office has denied Scott and Bowne of Bloomfield, N. J., permission to register the words "Milk of Cod Liver Oil" as a trade mark for medicinal cod liver oil preparation. A decision written by Thomas E. Robertson, Commissioner of Patents, quotes the Standard dictionary's definition of "milk" to show that in pharmacy it is used to describe emulsions of milk-like preparations and referred to a number of instances where "milk" is used in medicine as a descriptive term.

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Drugs and Fine Chemicals

Vanillin Makers Get Clove Spice Rebate—Nominal Prices Rule for Synthetic Methanol —Quicksilver Stronger

The past week in the market for drugs and fine chemicals was productive of little in the way of changes in prices. The quotations appeared to be uniformly steady, with numerous strong "spots" sufficiently prominent to take away the taint of the market being without interest. The strong items were methanol, quicksilver, mercurials, cadmium metal and its salts, alcohol, and potash iodide. In addition to strong articles there were others holding developments in market conditions that served to relieve the market of tediousness. Among such materials were vanillin and quinine. Business as a whole was fairly active, volume being generally up to the mark of early fall.

Cadmium metal was under the influence of a demand which seemed to be about one pace ahead of requirements. Strength was noted in the domestic and all foreign markets. Potash iodide was strongly placed in favor of domestic producers owing to the absence of outside competition.

Market conditions in vanillin held interest from the standpoint of effects on the cost of production. The French government at Zanzibar is rebating 3½c. per pound on all purchases of clove spice made by the vanillin producers. Quinine became prominent for the reason that the consent decree signed by the Dutch and others had been entered in the United States Court of the Southern District of New York, regarding which consult the news and editorial columns of this issue of the Reporter.

Quicksilver prices were advanced sharply in London. In New York the spread of prices was wide between minimum and maximum quotations; conditions suggested that a firm order in hand for a round lot would result in maximum prices, or something very close thereto, being collected. Strength was due directly to absence of offerings from the Continent. Limited lots offered from London, but the international sales office of the Spanish and Italian producers was silent. Stocks held by the combination are believed to be so small that opening of the Spanish mines, even at the delayed date of November 1, as recently reported, is problematical. Of course, mercurial preparations reflected the position of raw material.

Methanol was strong for the reason that the makers of synthetic are unable to book any more business. Prices in such directions mean nothing at all when it comes to getting deliveries on new orders. Natural was strong also, though the supply was more than sufficient for needs to the end of this year. Alcohol occupied a well maintained position owing to the fact that production has been fairly well sold to the end of this year and any chance of a surplus has been avoided.

Price Changes

Prices were changed during the past week as follows:—

Advanced	Reduced
Silver, bullion, N. Y., ½c. per oz.	Silver nitrate, ¼c. per oz.

Comparative Values

Index numbers compiled from thirty-five typical drugs and fine chemicals on the basis of a normal of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
183.2	183.2	183.1	173.5

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Acetone.—Very steady undertones were the rule and prices were unchanged. Reports from London were to the effect that sale of acetone made in the United States would cease and that England would have to depend on the Continent for further supplies. Inquiry at the New York office of the American maker resulted in a statement that exports would not stop entirely but that they would be materially curtailed. During the period January-July this year, approximately 3,000,000 pounds were exported to the world.

Acetone Oil.—Production and consumption were closely gauged and hence the market lacked weakness. Inquiry continued fair in volume last week.

Acetylsalicylic Acid.—Business was comparatively light last week, jobbing requirements being mainly in demand on account of the smaller consumers. Producers were firm as to price and secondhand offerings were comparatively light.

Agar Agar.—Sturdy maintenance of prices prevailed, stocks being narrow and but little in excess of present consuming requirements of smaller buyers. Japan advised of a strong market there.

Alcohol.—Demand for alcohol of all kinds was reported to be excellent. Inquiry was declared to be active and in addition to much new business the prompt ordering out of goods due on contracts was a feature indicative of market strength of no small order. Production was reported well controlled and gauged to stay within the official limits decided on by the trade and the Prohibition Bureau. Prices were firm and, if anything tended upward.

Aloin.—Inquiry was somewhat slow but the movement into consumption was more than sufficient to support recent prices. In fact, quotations appeared to be close to being strong.

Ambergris.—Light supply checked against small demand to the end that prices were very steady but without development during the past week.

Amyl Acetate.—The market had a strong undertone and conditions made it almost certain that within a comparatively short time prices would be advanced substantially.

Antipyrin.—Undertones were very steady. While competition was rather prominent, still the cost to import was such as to preclude profitable shading of current quotations in this market. The tendency was toward firm maintenance of present prices.

Bismuth.—The entire group was steady, with the possible exception of subnitrate powder, in which article a deal of resale competition was reported current. Metal was without change here or abroad and it was intimated that shading of prices for the same had ceased.

Borax.—With the principal consumers of large quantities under contract, the market had a very steady undertone and activities were directed mainly to the meeting promptly of all contract requirements.

Cadmium Metal.—Reports from London were to the effect that prices there were 2s. 10d. per pound but that regular customers were receiving the preference in deliveries and booking of new orders. Agents of the Australian producers seemed to control the market strongly. Contracts were being booked several months ahead.

Caffeine Alkaloid.—Fairly steady demand for limited quantities was reported but in the main the market was very quiet and but seldom disturbed by the presence of inquiries for large lots.

Castor Oil.—One of the producers indicated that demand was very slow. The other said it was fair. Prices were unchanged. Imports of castor beans during the period January-July this year totaled 68,854,869 pounds as compared with 75,480,336 pounds during the equivalent period, 1927.

CHICAGO, Sept. 19.—No change was registered in the ruling prices in the market for castor oil here the past week, although the tone of the dealings for the most part seemed to be a trifle easier. There were a few large inquiries in the offing, it was understood. Small orders constituted the bulk of the business actually placed. Sellers were trying to hold the price. Ruling quotations per pound were:—No. 1, drums, car lots, 13c.; drums, less than car lots, 13½c.; barrels, car lots, 13¼c.; barrels, less than car lots, 13¾c.; five-gallon tins, 14¾c.; one-gallon tins, 16¾c.; No. 3, drums, car lots, 12½c.; drums, less than car lots, 13c.; barrels, car lots, 12¾c.; barrels, less than car lots, 12¼c.

Citrates.—Undertones were very firm. Foreign makers recently established higher prices for the entire group due to the advanced cost of production. The local producers reported steady

Current prices on drugs and fine chemicals, formerly printed on pages 4 and 6, are now printed at the end of this market report.

Valuable information on Imports and Exports of Drugs and Fine Chemicals is given in port lists beginning on page 5.

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demand in a market clear of most competition.

Cocoa Butter.—Low prices for raw material kept butter on the easy side, with the tendency toward competition quite marked. Production was ample and the absence of more than moderate demand emphasized the downward tendency of quotations.

Codliver Oil.—Business was sluggish and gave little indication of the volume needed to bring about the improvement in prices which most importers have been predicting since it was certain that production in Norway this year was far under the average for the past five years. Prices on spot were steady, due to the maintained cost for replacements in the primary market.

Corn Syrup.—Though the market was easy, due to the tendency of raw material prices, producers failed to change their schedule last week. A tendency to curtail demand was noted.

Cream of Tartar.—Imports during the period January-July, 1928, totaled 61,600 pounds as compared with 190,319 pounds landed here during the equivalent period, 1927. The market was very firm at the recent advance named by the domestic producers, whose position as compared with that of the importers was such as to bring them most of the business current at the present time.

Creosote. — Substantial orders for U.S.P. carbonate were understood to have been placed, the market taking on a very steady undertone and prices being subject to virtually no competitive influences.

Epsom Salt.—Prices were firm. Demand was about normal, giving the market a steady undertone and tending to the support of prices. Domestic producers reported business to be very good throughout the period.

Ergotin.—This article was without change as to price. As concerned the raw material situation, the future of prices was most uncertain owing to the highly speculative character of the article and the general uncertainty surrounding all Spanish agricultural crops this year.

Ether.—Competition was rather keen most of the past week and it was understood that from time to time prices had been shaded under special conditions. The open schedule remained without change.

Ethyleneglycol.—It was understood that sales on contracts covering a portion of the requirements of sellers of this article for anti-freeze purposes had been good and that the market will go into the season of largest consumption in quite firm position unless competitive materials should be altered materially.

Formaldehyde.—Inquiry on export account was said to be good and about normal for the season of the year. Production costs tended upward due to the strength in raw material and the apparent determination of those controlling that article to put it on a profitable basis as regards price.

Glycerin.—Further trading in dynamite glycerin was reported, but full prices were paid in virtually all instances. For the most part a feeling that the market was undergoing quiet improvement seemed to prevail in a number of quarters, though so far as prices went the improvement was far more apparent than real. However, one gain was the fact that save for an isolated jobber or two the refiners' quotations for chemically pure glycerin controlled the market; shading was no longer an element to be concerned about, in the opinion of the leading producers.

CHICAGO, Sept. 19.—While there was some irregularity in prices in the local glycerin market, the composite result of the changes indicated some gain in strength, with a slow movement toward improvement. Dynamite and saponification grades apparently were the strongest, while chemically pure was quoted unchanged. Buying was mostly small-lot. Ruling quotations per pound were:—Dynamite, 13c. to 13¼c.; soap-lye, crude, 80 percent basis, 7¾c.; chemically pure, car lots, returnable drums, 14c.; chemically pure, less than car lots, returnable drums, 15c.; saponification, 88 percent basis, 8¾c. to 8⅞c.

Guaiacol Carbonate.—A gain in trading was noted, though the improvement was of a somewhat quiet sort that coincided with the normal pickup in demand with the approach of fall. Prices were very steady.

Haarlem Oil. — All reports indicated a very firm price position, locally and in the primary market of supply. Demand was steady for quantities normal in size and indicative of a well maintained requirement on the part of buyers.

Iodides.—Potash was very firm, competition being nil and the domestic producers finding no difficulty in moving the present volume of production at current prices. Imported merchandise played but a limited part in transactions noted during the period under review.

Iodine..— Imports of crude iodine during the period January-July, 1928, totaled 471,028 pounds, as compared with 545,292 pounds landed during the equivalent period, 1927. Prices were quite steady.

Menthol.—A stable market showing little change as to the movement to consumers and no change as concerned local quotations ruled throughout the past week. Imports during the period January-July, 1928, totaled 165,810 pounds, as compared with 224,527 pounds brought in during the equivalent period, 1927.

Mercurials.—A strong market ruled due mainly to the total absence of strength in the raw material. Demand for mercurials was about normal and, if anything, tended toward improvement in view of the chance that prices may be advanced because of the situation in quicksilver.

Methanol.—Makers of synthetic alcohol in this country declared last week that quotations for their article meant little or nothing at this time, owing to the fact that their production was sold up, and that new orders, save from favored customers, could not be filled. Domestic makers of natural methanol reported ample stocks to meet all consuming requirements of this country to the end of this year. While the market was strong and the tendency of prices was upward, no change was made last week.

Quicksilver. — The spread in minimum prices, according to seller, in this market was $130 to $134 per flask. Quotations from London came in higher at £24 5s. per flask. The international office of the Italian and Spanish producers offered neither metal nor prices. Conditions on the spot suggested that any buyer requiring a major quantity of metal for delivery out of present stocks would have to pay close to $134 per flask. Stocks in bonded warehouse as of July 31 were 453,156 pounds, being indicative of the low state of stocks in this country. Production at the Almaden mines in Spain will not be resumed until November 1 at the earliest. This is one month later than usual. Information here was that production would not be resumed this year, owing to the large stocks being now carried by the international sales company, through which the production of both Spanish and Italian mines is to be sold under agreements reached by the producing companies and their respective governments.

Quinine.—The consent decree negotiated by the Department of Justice and signed by the Dutch quinine manufacturers, in addition to all others on the European continent, and the domestic makers as well, was filed last Thursday and entered as a judgment by the court. For details, consult the news and editorial columns of this issue of the Reporter. Imports during the period January-July, 1928, totaled 1,039,000 ounces as compared with 1,032,487 ounces during the equivalent period, 1927. Arrivals of all other derivatives from cinchona bark totaled 421,124 ounces as compared with 648,653 ounces in the similar period, 1927.

Silver Nitrate.—The schedule of prices since the last report prevailed at the following levels, covering quantities of 100 ounces; small lots cost from 1c. to 2c. more, and quantities of 500 ounces about 1c. less; comparison

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of New York and London prices for bullion is also provided:—

	Per ounce—Bullion—		
	Nitrate Cents.	New York Cents.	London Pence.
Saturday	40⅝	57¼	26⅛
Monday	40⅛	56⅞	26⅛
Tuesday	40⅛	56⅞	26⅛
Wednesday	40⅛	57	26⅛
Thursday	40⅝	57¼	26⅛
Friday	40⅝	57⅝	26⅛

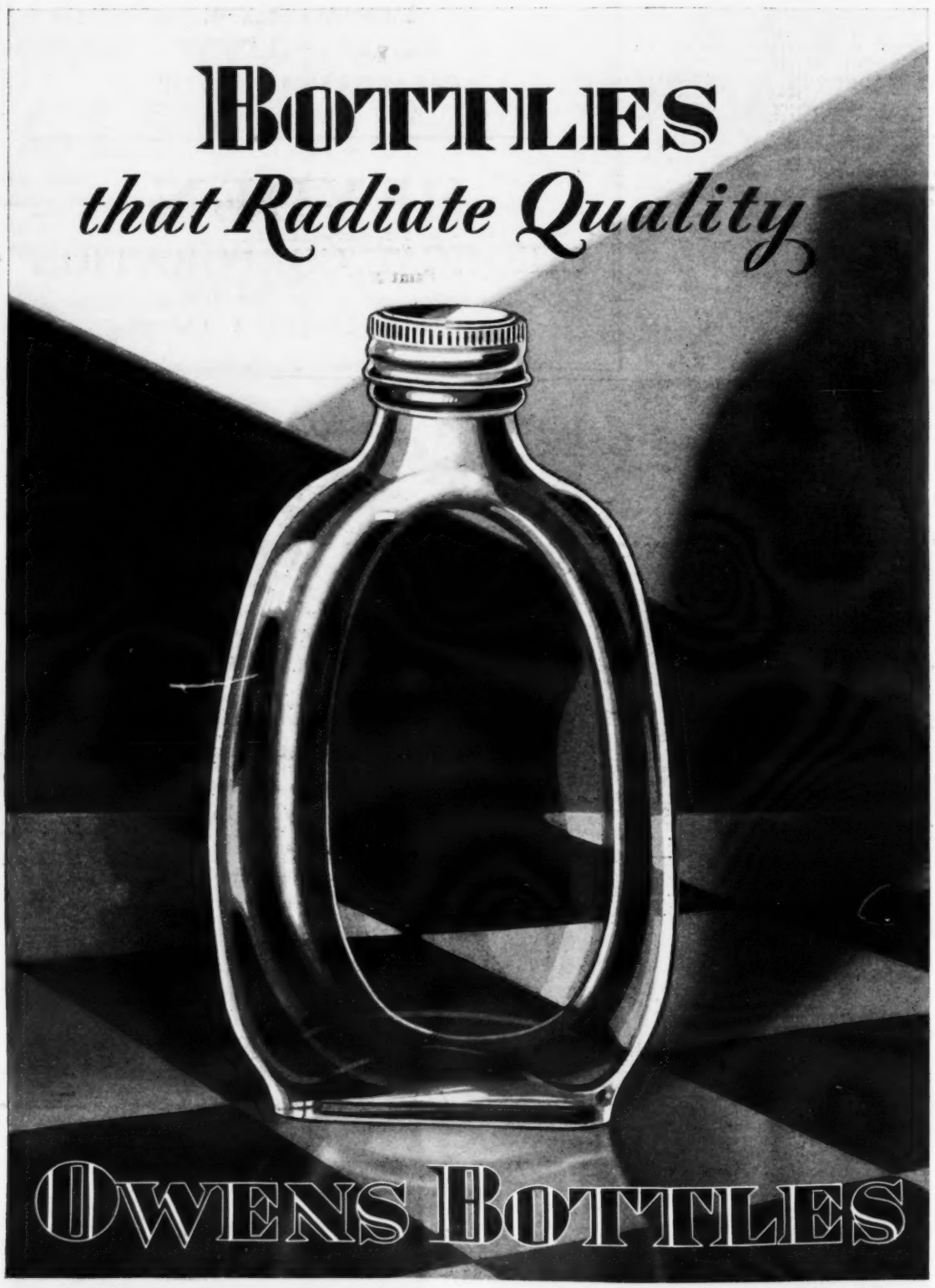
Vanillin.—News from the Island of Zanzibar reported the government as granting a rebate on clove purchases made by vanillin manufacturers in this country and Europe. The rebate amounts to 3½c. per pound. In order to profit by the same, vanillin manufacturers will have to import their clove spice direct, cutting out all middlemen. The move was made to combat the growing business in synthetic vanillin, development of which had caused a cut in consumption of clove spice.

Current Prices

(For late price changes, see page 2)

Acetaldehyde, drums.....lb. .18½@ .21
Acetanilide, U.S.P., barrels...lb. .36 @ .37
Acetone, car lots, drums.....lb. .15 @ —
less car lots, drums.....lb. .16 @ .17
methyl (see methyl acetone).
Acetone oil, barrels.....gal. 1.15 @ 1.25
Acetphenetidin, barrels.....lb. 1.40 @ 1.50
Acetylsalicylic acid, barrels...lb. .85 @ .90
Aconitine alkaloid, amorphous, vials .....oz.30.00 @ —
crystals, vials.....oz.30.00 @ —
Adeps lanae, anhydrous, barrels, lb. .14 @ .16
hydrous, barrels.....lb. .13½@ .15
Agar agar, No. 1, bales.....lb. 1.25 @ 1.26
No. 2, bales.....lb. 1.05 Nom.
No. 3, bales.....lb. .85 @ .87
Albumen, milk, f.o.b. works, sacks .....lb. .05 @ .05½
vegetable, edible, works, barrels .....lb. .65 @ .70
Alcohol, benzyl, bottles.....lb. 1.25 @ 1.85
denatured, completely, No. 1, 188 proof, works, car lots, barrels.....gal. .55 @ —
drums .....gal. .48 @ —
less car lots, barrels..gal. .58 @ .63
drums .....gal. .51 @ .56
tanks .....gal. .46 @ —
completely, No. 5, 188 proof, works, car lots, barrels, gal. .54 @ —
drums .....gal. .47 @ —
less car lots, barrels..gal. .57 @ .62
drums .....gal. .50 @ .55
tanks .....gal. .45 @ —
(180 proof, C.D., 1c. per gal. less than 188 proof).
special No. 1, 190 proof, works, car lots, barrels, gal. .54 @ —
drums .....gal. .47 @ —
less car lots, barrels..gal. .57 @ .62
drums .....gal. .49 @ .54
tanks .....gal. .44 @ —
Delivered prices in drums exceed works prices, according to freight distances, as follows:—
Zone 1.....1c. per gal.
Zone 2.....2c. per gal.
Zone 3.....3c. per gal.
Zone 4.....4c. per gal.
ethyl, 190 proof (from molasses), barrels.....gal. 2.64 @ 2.74
drums .....gal. 2.59 @ 2.67
Alcohol, ethyl, 190 proof (from grain), barrels.....gal. 2.69 @ 2.79
drums .....gal. 2.64 @ 2.72
absolute, drums.....gal. 4.70 @ 4.80
isopropyl, 91 p.c., drums...gal. 1.05 @ 1.35
98 p.c., drums.....gal. 1.30 @ 1.60
methyl (see methanol).
Aldehol, denaturing grade, works, drums or tanks.....gal. .85 @ .92
Aldol, technical, car lots, drums, .27 @ —
less car lots, drums.....lb. .31 @ —
Aloin, barrels, cans.....lb. 1.15 @ 1.20
Ambergris, gray, tins.....oz.36.00 @40.00
Amidopyrene, cans.....lb. 4.30 @ 4.60
Ammonia acetate, kegs.....lb. .34 @ .36
borate, bottles.....lb. .35 @ —
carbonate, U.S.P., lump, barrels .....lb. .12 @ .16
powder, barrels.....lb. .13 @ .17
chloride, U.S.P., granular, barrels .....lb. .13 @ .14
phosphate, dibasic, barrels..lb. .40 @ .43
monobasic, barrels.....lb. .40 @ .42
salicylate, U.S.P., kegs.....lb. 1.15 @ 1.20
Amyl acetate, technical, works, tanks .....gal. 1.65 @ —
car lots, drums, works...gal. 1.67 @ —
less car lots, drums, works, gal. 1.75 @ 2.25
high test, drums.....gal. 1.90 @ —
Antipyrin, bulk, cans.....lb. 1.48 @ 1.60
Apomorphine, cans.....oz.22.00 @22.70
Arecoline hydrobromide, bottles, vials .....oz. 7.75 @ 8.75
resale, bottles, vials.....oz. 6.25 @ 6.50
Aristol (see Iodides, thymol).
Aspirin (see acetylsalicylic acid).
Atropine alkaloid, vials.....oz. 6.50 @ 7.00
sulphate, vials.....oz. 2.65 @ 3.00
Barbital, cases.....lb. 3.65 @ 3.90
Barium chlorate, kegs.....lb. .14 @ .15
chloride, C.P., barrels.....lb. .17 @ .18
nitrate, casks.....lb. .08¾@ .08½
sulphate, X-ray, barrels....lb. .14 @ .15
Bay rum, domestic, barrels..gal. .70 @ .75
imported, barrels.....gal. .85 @ .90
Betanaphthol benzoate, boxes, kegs .....lb. 2.35 @ 2.50
Bismuth citrate, U.S.P., VIII, boxes .....lb. 2.75 @ 2.80
glycerite, N.F., demijohns..lb. .71 @ .76
hydroxide, boxes, fiber drums, lb. 3.05 @ 3.10
metal, ton lots.....lb. 1.70 @ —
nitrate crystals, jars.....lb. 1.85 @ 1.90
oxide, powder, boxes, fiber, drums .....lb. 3.45 @ 3.50
Bismuth oxychloride, boxes, fiber drums .....lb. 3.10 @ 3.15
subbenzoate, boxes, fiber drums lb. 3.25 @ 3.30
subcarbonate, U.S.P., barrels, fiber drums .....lb. 2.45 @ 2.50
X-ray, bottles, fiber drums.lb. 3.40 @ 3.45
subgallate, barrels, fiber drums lb. 2.50 @ 2.55
subiodide, bottles, fiber drums lb. 4.25 @ 4.30
subnitrate, cones, bottles, fiber drums .....lb. 3.20 @ 3.25
powder, bottles, fiber drums lb. 2.05 @ 2.10
subsalicylate, 62@66 p.c., barrels .....lb. 2.90 @ 2.95
Bismuth-ammonium citrate, U.S.P., scales, cans.....lb. 5.50 @ 5.55
Borax, crystals, car lots, freight allowed, barrels.....lb. .03 @ —
kegs .....lb. .03½@ —
sacks .....lb. .02¾@ —
granular and powder, car lots, freight allowed, barrels..lb. .02¾@ —
kegs .....lb. .03¼@ —
sacks .....lb. .02½@ —
Bromides—
ammonium, granular, barrels.lb. .47 @ .48
cadmium, jars, bottles.....lb. 1.20 @ 1.25
calcium, jars .....lb. .65 @ .69
ethyl, pure, bottles.....lb. .85 @ .95
lithium, jars .....lb. 1.85 @ 1.90
potassium, domestic, barrels.lb. .42 @ .43
sodium, domestic, barrels...lb. .42 @ .43
strontium, barrels .....lb. .51 @ .52
Bromine, purified, cases.....lb. .45 @ .47
Bromoform, U.S.P., jars.....lb. 1.80 @ 1.90
Brucine alkaloid, cans.....oz. .04 @ .05½
sulphate, cans .....oz. .04 @ .05½
Butyric ether, cans.....lb. 1.10 @ 1.20
Cadmium metal, cases.....lb. .70 @ .75
Caffeine alkaloid, cans, cases.lb. 2.80 @ 2.95
citrated, cans .....lb. 2.00 @ 2.40
hydrobromide, jars, bottles.lb. 4.80 @ 5.00
Calcium lactate, U.S.P., barrels, lb. .52 @ .54
sulphide, crude, drums.....lb. .21½@ .24
Camphor, see Gums.
Camphor, monobromate, boxes, kegs .....lb. 1.85 @ 1.95
Cantharides, Chinese, cases..lb. .50 @ .55
powdered, boxes .....lb. .80 @ .82
Russian, cases .....lb. .60 @ .65
powdered, boxes .....lb. .80 @ .82
Castile soap, white, per case...15.00 @ —
Castor oil, medicinal, car lots, barrels .....lb. .12¾@ —
cases .....lb. .13¾@ —
drums .....lb. .12½@ —
less car lots, barrels.....lb. .13 @ —
cases .....lb. .14 @ —
drums .....lb. .12¾@ —
No. 3, car lots, barrels....lb. .12¼@ —
cases .....lb. .13¼@ —
drums .....lb. .12 @ —
less car lots, barrels.....lb. .12½@ —
cases .....lb. .13½@ —
drums .....lb. .12¾@ —
Castoreum, cans, car lots...lb.10.00 @12.00
Chalk, precipitated, car lots, extra light, casks.....lb. .03½@ .04¼
heavy, casks .....lb. .02 @ .03½
light, casks .....lb. .03¼@ .03¾
Charcoal, willow, powder (see Dry Colors, page 3).
Chloral hydrate, drums.....lb. .75 @ .80
Chloroform, technical, drums.lb. .18 @ .20
U.S.P., drums .....lb. .28 @ .30
resale, drums .....lb. .27 @ .28
Chloramine, U.S.P., barrels..lb. 1.50 @ 2.50
Chromium sulphate, scales, boxes, cans, fiber drums.lb. .59 @ .60
sulphate, pearls, boxes, cans, fiber drums.....lb. .46 @ .51
powder, boxes, cans, fiber drums .....lb. .51 @ .56
Chrysarobin, cans .....lb. 3.65 @ 3.75
Cinchonidine alkaloid, cans...oz. .60 @ .65
sulphate, cans.....oz. .35 @ —
Cinchonine, alkaloid, cans....oz. .38 @ .43
sulphate, cans.....oz. .25 @ —
Citric acid (see Industrial Chemicals).
Citrates—
ammonium, kegs.....lb. .85 @ .90
iron, U.S.P. VIII, cans.....lb. .94 @ .99
iron-ammonium, brown scales, cans .....lb. .60 @ —
green scales, cans.....lb. .65 @ .67
potash, barrels.....lb. .51 @ .53
soda, U.S.P. VIII, cans.....lb. .38 @ .40
U.S.P., X, cans.....lb. .45 @ .47
Cocaine hydrochloride, cans..oz. 8.50 @ 8.75
Cocoa butter, bulk, bags.....lb. .29½@ .30
fingers, cases.....lb. .40 @ .45
Codeine alkaloid, cans.....oz.10.20 @10.25
hydrochloride, cans.....oz. 9.20 @ 9.25
nitrate, cans.....oz. 9.20 @ 9.25
phosphate, cans.....oz. 7.75 @ 7.80
salicylate, cans.....oz. 7.75 @ 7.80
sulphate, cans.....oz. 8.25 @ 8.30
Codliver oil, Norwegian, bbls.bbl.42.00 @44.00
Colchicine alkaloid, vials.....oz.20.00 @ —
Collodion, U.S.P., drums.....lb. .22 @ .23
flexible, U.S.P., drums.....lb. .24 @ .25
Corn syrup, 42 deg., barrels.... 100 lbs. 4.11 @ 4.36
43 deg., barrels.....100 lbs. 4.16 @ 4.31
Coumarin, cans.....lb. 3.60 @ 4.00
resale, cans.....lb. 3.50 @ 3.55
Cream tartar, domestic, barrels, lb. .27¾@ .28
fiber, drums.....lb. .29 @ —
kegs .....lb. .28½@ —
imported, barrels.....lb. .26 @ .26½
Creosote, U.S.P., bottles.....lb. .40 @ .42
carbonate, bottles, carboys..lb. 1.50 @ 1.60
Crotonaldehyde, technical, car lots, drums.....lb. .32 @ —
less car lots, drums.....lb. .36 @ —
drums .....lb. .10 @ —
less car lots, works, drums, Diethyleneglycol, car lots, works, lb. .13 @ —
monoethyl ether, car lots, drums .....lb. .13 @ —
less car lots, drums.....lb. .14 @ .15
monobutyl ether, car lots, drums .....lb. .25 @ —
less car lots, drums.....lb. .28 @ —
Dover's powder, U.S.P., cans..lb. 2.45 @ 2.50
Duboisine sulphate, vials.....oz.30.00 @ —
Emetine, hydrochloride, bottles, vials .....oz.35.00 @36.00
resale, bottles, vials.....oz.26.00 @28.00
Epsom salt, domestic, technical, bags, barrels.....100 lbs. 1.70 @ 1.90
U.S.P., car lots, bags..100 lbs. 2.15 @ —
car lots, barrels.....100 lbs. 2.25 @ —
less car lots, bbls....100 lbs. 2.50 @ 3.00
imported, technical, bags..... 100 lbs. 1.15 @ 1.20
U.S.P., barrels.....100 lbs. 1.95 @ 2.00
Ergotin, jars.....lb.18.50 @19.00
Eserine salicylate, bottles, vials, oz.40.00 @ —
sulphate, bottles, vials.....oz.40.00 @ —
Ether, concentrated, drums...lb. .15 @ —
U.S.P., anesthesia, drums...lb. .20 @ —
U.S.P., 1880, drums.....lb. .37 @ .38
washed, drums.....lb. .35 @ .36

(Continued on page 78)



SEE WHAT YOU BUY — BUY IN GLASS

Botanical Drugs

Foreign Flower Crops Generally Estimated to Be Subnormal—Burdock and Valerian Root Hard to Get Abroad

Betterment in market feeling on spot continued to develop and to a very considerable extent the fall season opens up with prices very steady under the influence of a minimum of shading under the ordinary circumstances of trade. Where competition pressed with more than usual strength, sufficient slack was found in the general price position of many articles to permit concessions being made. Such concessions were usually special and applicable solely to an individual transaction. The tendency of all sellers was to maintain prices more sturdily. This was perhaps most evident in the trend toward narrower differences in minimum prices named by the various dealers. In point of fact, the Fall season opens with dealers quoting prices closely approximating each other.

Perhaps the outstanding feature of the week was the definite understanding that European flower crops had proven to be generally small. Earlier reports have been set aside almost entirely. Almost without exception the imported flowers may be counted the strongest section of the botanical market and from the present point of view the future seemed to be committed to high prices. Outstanding strength was noted in arnica, chamomile, lavender, and linden flowers.

Short crops were also reported for stramonium leaves and Belgian valerian as well as burdock root. The latter is unobtainable abroad at present, the old crop being sold out. New crop was offered for October-December shipment, which to most dealers here meant December. Valerian of USP quality was reported to be virtually unobtainable abroad and the world will have to await offerings of new crop, the outlook for which is not so good right now.

The improvement in market position mentioned above was most evident in the root list last week. Low sellers changed their views materially and made necessary a particularly close check-up of the group. Competition was a deal less prominent and wide spread in minimum quotations seemed to have disappeared entirely. A feature of the week was the fancied weakness in ipecac. Some have taken a position that liquidation of present holdings is advisable and hence a tendency to shade was quite prominent. Though only spring dug dandelion was available, the price was higher and fairly strong. Burdock was so scarce as to be nominal as to price and sellers quoting were oftentimes buyers at the figures they named. Gentian assumed an easier position, stocks being more plentiful.

Price Changes

Prices were changed during the past week as follows:—

Advanced

Aconite root, 1c. per lb.
Aletris, 2c. per lb.
Angelica, 3c. per lb.
Bloodroot, 1c. per lb.
Burdock, 5c. per lb.
Calamus, ordinary, 1c. per lb. bleached, 3c. per lb.
Colombo, 2c. per lb.
Chamomile, Hungarian, 2c. per lb.
Clove, ½c. per lb.
Dandelion, 2c. per lb.
Echinacea, 3c. per lb.
Galangal, 1c. per lb.
Jalap, whole, 1c. per lb. powdered, 4c. per lb.
Kava kava, ½c. per lb.
Lady slipper, 5c. per lb.
Mustard, Calif. brown, ¼c. per lb. Chinese Yellow, ½c. per lb. English yellow, ½c. per lb.
Orris, Florentine, whole, ½c. per lb. powdered, ½c. per lb. fingers, 5c. per lb.
Verona, whole, 1c. per lb. powdered, 1c. per lb.
Pleurisy, 3c. per lb.
Pumpkin seed, 4c. per lb.

Reduced

(See preceding column)

Paprika, extra fancy, 2c. per lb. fair, ¼c. per lb. fancy, 2c. per lb. medium, ½c. per lb.
Peppers, black, Alleppy, ½c. per lb. Singapore, 1c. per lb.
Rhatany, 1½c. per lb.
Rhubarb, powdered, 1c. per lb.
Stavesacre, 1c. per lb.
Serpentaria, 2c. per lb.
Snake root, Canada, 1c. per lb.
Spikenard, 2c. per lb.
Stillingia, ½c. per lb.
Strophanthus, Kombe, 25c. per lb.
Thyme, French, 2c. per lb.
Unicorn, false, 2c. per lb.
Valerian, 1c. per lb.
Yellow dock, 1c. per lb.

Comparative Values

Index numbers compiled from forty typical botanicals on the basis of a normal of 100 for August 1, 1914, compare as follows:

Last week.	Prev. week.	Last month.	Last year.
123.5	123	121	127

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Current prices on botanical drugs, formerly printed on pages 6 and 8, are now printed at the end of this market report.

Balsams

Copaiba.—Demand was strictly for jobbing purposes and the total of trade was moderate. Prices were steady.

Peru.—Undertones were steady under influence of a moderate demand for prompt deliveries. Replacement costs were steady also.

Barks

Bayberry.—The market was stronger due to withdrawal of competition and adoption of a generally firmer attitude toward future business.

Cocillana.—Competition still prevailed, though there seemed to be less disposition to shade than had been the case at times during recent weeks. Prices were without open change, however.

Cramp.—Sales confirmed the market at at 45c. per pound minimum with the range to 50c. as to seller still prevailing for buyers of genuine bark. Demand was not very active, however.

Lemon Peel.—The low stock and the high price for replacements combined to keep this article to a strong position under fair demand.

Wahoo.—Tree bark was strong at the recent rise of 30c. to 31c. per pound, an advance made by decrease in competition. Root bark was firm but unchanged.

Wild Cherry.—New crop was reported to be excellent in quality and of a size calculated to meet all manufacturing requirements during the busy season just ahead.

Beans

Calabar.—Though sales were lacking, the market was still 23c. to 25c. per pound as to quantity.

Vanilla.—Local importers were concerned regarding the next crop of Guadaloup beans. The island was directly in the path of the hurricane that swept the Atlantic Ocean from Porto Rico to Florida early last week. If the experience of the French Islands, in the Far East, where hurricanes are fairly common, be a guide, a sharp reduction in the output of vanilla beans from Guadaloup may be reckoned on with a better than fair chance of such reckoning being correct. The vanilla market as a whole was reported to be fairly steady under quiet demand.

Berries

Buckthorn.—Following the decline in the previous week, the market took on a steadier undertone and seemed

Valuable information on Imports and Exports of Botanical Drugs is given in port lists beginning on page 5.

TESTED BOTANICALLY — HOPKINS BRAND — TESTED MICROSCOPICALLY

ANALYZED CRUDE DRUGS

Aloes	Henbane Leaves	Rhubarb Root
Asafoetida Gum	Ipecac Root	Senna Leaves
Belladonna Leaves	Juniper Berries	Squills
Buchu Leaves	Karaya Gum	Strophanthus Seed
Cinchona Bark	Kola Nuts	Sundew
Colocynth Pulp	Lavender Flowers	Tonga
Digitalis Leaves	Licorice Root	Tragacanth Gum
Doggrass	Mastic Gum	Uva Ursi Leaves
Ergot	Myrrh Gum	Valerian Root
Eucalyptus Leaves	Orris Root	Wormseed Levant
Fennel Seed	Papain	Yellow Dock Root
Gentian Root	Quince Seed	Zedoary Root

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Buchu Leaves
Ergot
Senna, new crop
Valerian Root, Belgian

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Agar Agar Powdered	Extract Witch Hazel	Laurel Leaves
Balsam Fir Canada	Fish Berries	Mineral Oil
Barbadoes Aloes Powd.	Fumigating Pastilles	Olive Oil Green
Barbadoes Tar	Fluid Extract Cascara Sagrada	Olive Oil Italian
Bay Rum Domestic	Gum Benzoin	Olive Oil Spanish
Bay Rum St. Thomas	Gum Benzoin Powd.	Precipitated Chalk Sturgis
Calcined Soot	Gum Euphorbium Powd.	Silex
Cascara Sagrada Powd.	Gum Myrrh Granul.	Skunk Oil
Cassia Fistula	Gum Myrrh Powd.	Socotrine Aloes Powd.
Charcoal Willow	Gum Olibanum	Tamarinds
Cod Liver Oil	Gum Olibanum Powd.	Tincture Green Soap
Colchicum Root Powd.	Jalap Root Ground	Venice Turpentine Artificial
Cuttle Fish Bone		Zinc Oxide Hubbucks

destined to assume a quite firm position at the new low level.

Saw Palmetto.—A large stock of this article is available and hence the hurricane that swept the Floridian Coast last week is unlikely to have immediate effect on prices. Should demand be larger than might reasonably be expected, the fact that collection in Florida will probably be smaller this year may eventually bring about an improvement in prices.

Flowers

Arnica.—The very steady rise in replacement costs has given a strong tone to the local market. The import cost has advanced 47c. since the first prices for new crop were put out in this market by agents of German shippers. Dealers here last week began to doubt receiving deliveries of flowers bought earlier in the season. The nominal spot price was $1.10 per pound; where to obtain anything was a problem of more than usual difficulty in this market.

Calendula.—This article bids fair to be a very scarce one during the coming year. Cables have constantly recorded advancing prices and decrease in the amount of stock offered. The only spot quotation avaiable last week was $1.35 per pound, basis of to-arrive. The import cost has advanced 55c. since the opening of the flower season.

Chamomile.—Hungarian was 2c. higher at 21c. to 22c. per pound. Roman was strong at 23c. to 24c. Outlook for the Belgian crop was excellent, being estimated at 100 tons, but the partial failure of the French crop has caused Belgian goods to strengthen amazingly.

Herbs

Marjoram.—French was 3c. cheaper at 15c. to 15½c. per pound and the German was down ½c. to the basis of 14½c. to 15c. Betterment in spot supply led to the lowering of prices.

Passion Flower.—A better understanding of values seemed to prevail on spot last week. Wide spread in minimum prices had given way to a closer approach of inside quotations.

Thyme.—A sharp rise in the replacement price put spot quotations up 2c. to the basis of 9¼c. to 9⅝c. per pound.

What Price Quality

In the reign of King Edward II, in the year 1315-1316, were enacted the first laws to assure the purity of all Botanical Drugs.

Peek & Velsor Inc.

76 William Street

New York City

President Polk, in 1848, signed the Drug Import Act, the first law in the U. S. to ban imports of decayed, dirty, or wormy Botanical Drugs.

This firm led the fight for the law which began the Pure Drug Era in the United States

Leaves

Digitalis.—This was one of the hardest articles to obtain on spot last week. Shipments are badly delayed because the crop was gathered later than usual. Prices were close to being nominal.

Senna.—New crop T. V. senna was reported arriving slowly, but it was apparent that no surplus supply would be available this year and that prices were rather sure to remain stronger under normal demand.

Stramonium.—Direct advices from Europe state that the crop this year will be a short one and that prices already show an upward tendency.

Miscellaneous

Corn Silk.—A firmer market ruled, shading having stopped and a tendency to strengthen being noted all along the line.

Ergot.—A market or nominal activity was reported. It was understood that some of the larger manufacturing consumers had been quietly covering needs in the Spanish and Portuguese market without materially influencing prices. The spot market was dull to the point of being inert; the tendency here was to shade on all orders for prompt delivery merchandise.

Roots

Burdock.—Belgian root bids fair to be a strong article for some time to come. Old crop has been exhausted in the primary market and new crop will not be available for shipment earlier than October-December. The usual experience is that goods are first shipped in December. Spot prices advanced 5c. on pronounced scarcity; the market was 15c. to 16c. per pound, there being buyers of everything offered under the inside figure.

Gentian.—Scarcity has been relieved and prices have been lowered accordingly. Quotations were: Whole, 9c. to 10c. per pound; ground, 12c. to 13c.; powdered, 12½c. to 13½c.

Ipecac.—The price tendency was downward, sellers here being anxious for orders in view of the fact that there is reason to believe that replacement costs will be lower. Quotations here were reduced to the following levels: Cartagena, whole, $2.65 to $2.70 per pound; powdered, $3.10 to $3.15; Rio, whole, $2.70 to $2.75; powdered, $3.10 to $3.15.

Orris.—All cables received emphasized the strength of prices in the Italian market and the continued advance in values there because of absence of carryover supplies and the unsatisfactory crop this year. Quotations on spot were advanced as follows: Florentine, whole, 13½c. to 14c. per pound; powdered, 15½c. to 16c.; fingers, 95c. to $1; Verona, whole, 12½c. to 13c; powdered, 14½c. to 15c. The crop of Verona root is not expected to exceed 200 tons; it is normally a 700-ton crop. Many of the large buyers in all countries are absolutely not covered on their needs.

Sarsaparilla.—West Indian root was reported in stronger position for shipment. American root was 2c. lower at 20c. to 21c. per pound on the spot. Mexican was unchanged.

Valerian.—The advance was extended 1c. to the basis of 17c. to 18c. per pound. The crop in Belgium was reported short and unrelieved by the presence of a carryover supply. Merchandise fully meeting USP specifications was reported to be hardly obtainable abroad.

Seeds

Anise.—Spot seed of Spanish origin was restricted to two holders of small lots. The market was very strong as to price, though not very active as to demand.

Caraway.—Competition shaded ¼c. from recent prices, the market being 9⅛c. to 9½c. per pound.

Celery.—Further shading was noted, sales being noted at 19½c. to 20c. per pound, a concession of ¼c. from previous prices. France was also a lower market.

Flea.—High quality black seed brought 23c. to 24c. per pound without difficulty. Brown was dull at 12c. to 12½c.

Mustard. — Underproduction continued to take its toll. Quotations for Californian brown were raised to 10¼c. to 10½c. per pound; Chinese yellow was up to 7⅜c. to 7¾c.; and English yellow was not available for less than 8⅜c. to 9c. Brown seeds were strong but unchanged.

Pumpkin. — Medium grades were higher at 14c. per pound, but the higher qualities were 1c. lower at 19c.

Sabadilla.—Powder was 2c. higher at 33c. to 34c. per pound under competition.

Stavesacre.—Sales confirmed at 1c. advance to 17c. to 18c. per pound.

Strophanthus.—Sales eliminated all $2 per pound seed. The market was advanced 25c. to the basis of $2.25 to $2.35 and closed strong thereat.

Worm.—Levant seed was in more competitive position and prices were 15c. lower at $4.25 to $4.30 per pound.

Spices

Clove.—Reports from the Far East made the future positions progressively higher and stronger as compared with prices for prompt shipments. Furthermore, a rebate of 3½c. per pound has been proposed for makers of vanillin, shipments to such manufacturers being made direct from the primary market. Spot quotations were ½c. higher at 26¾c. to 27c. per pound.

Paprika.—Higher replacement costs continued to bring spot advances. Quotations became as follows: Extra fancy, 28c. to 28½c. per pound; fair, 2:c. to 22½c.; fancy, 27c. to 27½c.; medium, 25c. to 25½c.

Peppers.—Though trade was rather narrow, the market remained strong due to underproduction and strong control of the sources of supply; London governs the world prices at this time. Quotations for black Singapore were 1c. higher at 36c. to 37c. per pound; Alleppy, ⅛c. higher at 37c. to 37½c.; white, Singapore, 1c. lower at 56c. to 57c.

Current Prices

(For late price changes, see page 2)

Balsams

Copaiba, Para, cans	lb.	.33 @	.35
S.A., U.S.A., cans	lb.	.35 @	.37
Fir, Canada, cans	gal.	12.00 @	12.25
Oregon, bbls	gal.	1.00 @	1.30
Peru, drums	lb.	1.72½@	1.75
Tolu, cans	lb.	1.00 @	1.10

Barks

Angostura, bales	lb.	.21 @	.22
Barberry root, bales	lb.	.19 @	.20
tree, bales	lb.	.11 @	.12
Bayberry, bags	lb.	.12½@	.13
Black haw root, bales	lb.	.27 @	.28
tree, bales	lb.	.15 @	.16
Buckthorn, true, bales	lb.	.05 @	.06
Butternut, bales	lb.	.08 @	.09
Canella alba, bales	lb.	.30 @	.31
Cascara sagrada, new crop, bales	lb.	.13 @	.14
one year old, bales	lb.	.14 @	.15
two years old, bales	lb.	.15 @	.16
four years old, bales	lb.	.17 @	.18
Cinchona, quilla, short, bags	lb.	.58 @	.60
long, cases	lb.	.65 @	.75
broken, bags	lb.	.20 @	.28
chips, bags	lb.	.20 @	.28
Cocillana, bags	lb.	.33 @	.34
Condurango, bags	lb.	.14 @	.15
Cottonroot, bales	lb.	.13 @	.14
Cramp, genuine, bales	lb.	.45 @	.50
so-called, bales	lb.	.07 @	.08
Dogwood, domestic, bales	lb.	.06 @	.07
Jamaica, bales	lb.	.09 @	.10
Elm, grinding, bales	lb.	.12 @	.13
powdered, barrels, boxes	lb.	.20 @	.21
select, bundles, cases	lb.	.24 @	.25
Fringetree, bales	lb.	.22 @	.23
Lemon peel, bales	lb.	.11 @	.12
Orange peel, bitter, Curacao, bales	lb.	.10½@	.11
sweet, bales	lb.	.08 @	.09
Pomegranate root, bags	lb.	No stocks	
tree, bags	lb.	.15 @	.16
Prickly ash, bales	lb.	.15 @	.16
Sassafras, ordinary, bales	lb.	.16 @	.17
select, bales	lb.	.27 @	.28
Simarubra, bales	lb.	.20	Nom.
Soap, bales	lb.	.13 @	.14
crushed, bales, barrels	lb.	.15½@	.16
cut, bales, barrels	lb.	.15½@	.16
powdered, barrels	lb.	.19 @	.20
Tonga, bales	lb.	.42 @	.45
Wahoo root, bales	lb.	.52 @	.53
tree, bales	lb.	.30 @	.31
White pine, bales	lb.	.07 @	.08
Wild cherry, thick, bales	lb.	.05 @	.06
rossed, bales	lb.	.09 @	.10
thin, bales	lb.	.07½@	.08
rossed, green, bales	lb.	.11 @	.12

Beans

Calabar, bags	lb.	.23 @	.25
St. Ignatius, bags	lb.	.13 @	.14
Tonka Angostura, casks	lb.	1.65 @	1.85
Vanilla, Bourbon, tins	lb.	1.75 @	2.15
Mexican, whole, tins	lb.	3.25 @	4.50
cuts, tins	lb.	2.60 @	2.75
South American, tins	lb.	2.50 @	2.75

Berries

Buckthorn, bags	lb.	.40 @	.41
Cubeb, XX, bags	lb.	.37 @	.38
powdered, cases, bags	lb.	.42 @	.44
Fish (coculus indicus), bags	lb.	.06½@	.07
Juniper, bags	lb.	.05¾@	.06
Laurel, bales	lb.	.08 @	.09
Prickly ash, bales	lb.	.18 @	.19
Raspberry, dried, barrels	lb.	.55 @	.57
Saw Palmetto, bales	lb.	.10 @	.11
Sumac, bags	lb.	.07 @	.08

Flowers

Arnica, bales	lb.	1.10	Nom.
Borage, bales	lb.	.15 @	.16
Calendula, bales, to arrive	lb.	1.35 @	—
Chamomile, Hungarian, genuine, cases	lb.	.21 @	.22
Roman, bales	lb.	.23 @	.24
Clover tops, bales	lb.	.10 @	.15
Elder, bales	lb.	.18 @	.25
Insect (pyrethrum), powdered, closed, barrels, kegs	lb.	.47 @	.48
half closed, barrels, kegs	lb.	.44 @	.45
open, barrels, kegs	lb.	.42 @	.43
powdered, with stems, barrels, kegs	lb.	.28 @	.29
Lavender, ordinary, bales	lb.	.30 @	.35
Select, bales	lb.	.42 @	.45
Linden, with leaves, bales	lb.	.32 @	.35
without leaves, bales	lb.	.35 @	.36
Malva, black, bales	lb.	.45 @	.50
blue, bales	lb.	.55 @	.60
Mullein, cans	lb.	2.00 @	2.10
Orange, cases	lb.	.25 @	.30
Poppy, red, bales	lb.	.60 @	.61
Rose, red, bales	lb.	1.80 @	2.00
Rosemary, bales	lb.	.25 @	.30
Saffron, American, bales	lb.	.28 @	.30
Spanish, tins	lb.	11.50 @	12.00

Herbs

Boneset, bales	lb.	.09½@	.10
Broomtops, bales	lb.	.10 @	.11
Cannabis, domestic, U.S.P., bales	lb.	.28 @	.30
Ephedra vulgaris, bales	lb.	.16 @	.17
Euphorbia pilulifera, bales	lb.	.09 @	.09½
Grindelia robusta, bales	lb.	.09 @	.10
Horehound, bales	lb.	.08 @	.09
Lobelia, bales	lb.	.15 @	.16
Marjoram, French, No. 1, bls.	lb.	.15 @	.15½
German, bales	lb.	.14½@	.15
Passion flower, bales	lb.	.08 @	.09
Pennyroyal, bales	lb.	.06 @	.08
Peppermint, bales	lb.	.13 @	.14
Pulsatilla, bales	lb.	.13 @	.14
Queen of the Meadow, bags	lb.	.07 @	.08
Rue, bales	lb.	.17½@	.18
Savory, bales	lb.	.07½@	.08
Skullcap, Eastern, bales	lb.	.38 @	.40
Western, bales	lb.	.20 @	.22
Tansy, bales	lb.	.10½@	.11
Thyme, French, bales	lb.	.09½@	.09⅝
Spanish, bales	lb.	.05¾	Nom.
Wormwood, bales	lb.	.09 @	.10

Leaves

Aconite, bales	lb.	.11 @	.12
Belladonna, bales	lb.	.18 @	.22
Boneset, bales	lb.	.11 @	.13
Buchu, bales	lb.	.40 @	.41
Catnep, bales	lb.	.18 @	.20
Coltsfoot, bales	lb.	.09 @	.10
Conium, bales	lb.	.12 @	.13
Damiana, bales	lb.	.16 @	.17
Deer tongue, bales	lb.	.12 @	.13
Digitalis, bales	lb.	.50 @	.55
Eucalyptus, bales	lb.	.07 @	.08
Henbane, bales	lb.	.18 @	.19
Henna, bales	lb.	.12 @	.13
powdered, barrels, boxes	lb.	.15 @	.16
Jaborandi, bales	lb.	.10 @	.11
Laurel, Italian, bales	lb.	.04⅛	Nom.
Greek, bales	lb.	.05 @	.05½
Liverwort, bales	lb.	.20 @	.21
Malva, bales	lb.	.14 @	.15
Matico, bales	lb.	.30 @	.31
Mullein, bales	lb.	.07½@	.09
Patchouli, bales	lb.	.23 @	.24
Peppermint, bales	lb.	.25 @	.28
Pichi, bags	lb.	.14 @	.15
Prince's pine, bales	lb.	.15 @	.16
Rosemary, bales	lb.	.05 @	.06
Sage, Greek, bales	lb.	.03½	Nom.
Dalmatian, bales	lb.	.05½@	.06
Senna, Alex., whole, bales, cs.	lb.	.20 @	.21
half leaf, bales	lb.	.13 @	.14
siftings, bales	lb.	.10 @	.11½
Tinnevelly, No. 1, bales	lb.	.16 @	.18
No. 2, bales	lb.	.11 @	.12
No. 3, bales	lb.	.07½@	.08
powdered, barrels, boxes	lb.	.09½@	.10
pods, bales	lb.	.09½@	.10
Spearmint, bales	lb.	.26 @	.28
Squaw vine, bales	lb.	.20 @	.21
Stramonium, bales	lb.	.17½@	.18
Tansy, bales	lb.	.11 @	.12
Uva ursi, bales	lb.	.04 @	.06¼
Witch hazel, bales	lb.	.07 @	.09
Yerba santa, bales	lb.	.09½@	.10

Miscellaneous

Agaric, white, bales	lb.	.58 @	.60
Areca nuts, bags	lb.	.10 @	.11
Balm of Gilead buds, bags	lb.	.40 @	.45
Cassia fistula, baskets	lb.	.12 @	.15
Colocynth, pulp, bales	lb.	.50 @	.55
Corn silk, bales	lb.	.05½@	.06
Dragon's blood, mass, cases	lb.	.65 @	.70
reeds, thin, cases	lb.	.90 @	.92
Ergot, spot, bags	lb.	1.00 @	1.10
Grains of paradise, bags	lb.	.45 @	.50
Guarana, cases	lb.	3.00 @	3.10
Hops, bales	lb.	.25 @	.26
Iceland moss, bales	lb.	.10 @	.12
Irish moss, ordinary, bales	lb.	.07 @	.08
bleached, prime, bales		No stocks	
Kamala, tins	lb.	.95 @	1.05
Kola nuts, bags	lb.	.12 @	.13
Lupulin, N.F., tins	lb.	1.65 @	1.75
Lycopodium, cases	lb.	.73 @	.75
Manna flakes, large, cases	lb.	.65 @	.70
small, cases	lb.	.48 @	.50
Nux vomica, bales	lb.	.05 @	.05¼
powdered, barrels, boxes	lb.	.07½@	.08
Papain, powdered, cases	lb.	3.50 @	3.75
Poppy heads, barrels	lb.	.55 @	.60
Quassia chips, bales	lb.	.06 @	.08
St. John's bread, bales	lb.	.05½@	.06
Tamarind, barrels	lb.	.05 @	.05¼
kegs	keg	3.75 @	4.00

Roots

Aconite, U.S.P., bales	lb.	.21 @	.22
Aletris, bags	lb.	.38 @	.39
Alkanet, bales	lb.	.12 @	.13
Althea, cut, cases	lb.	.33 @	.37
Angelica, American, bales	lb.	.23 @	.24
Arnica, bales	lb.	.45 @	.46
Arrowroot, St. Vincent, powd., barrels	lb.	.09 @	.10
Belladonna, bales	lb.	.19 @	.20
Berberis aquifolium, bales	lb.	.11 @	.12
Beth, bales	lb.	.17 @	.18
Black Indian hemp, bales	lb.	.18 @	.20
Blood, bales	lb.	.18 @	.19
Bluefag, bales	lb.	.17 @	.18
Bryonia, bales	lb.	.11 @	.12
Burdock, bales	lb.	.15 @	.16
Calamus, bags	lb.	.07 @	.08
bleached, cases	lb.	.38 @	.40
Cohosh, black, bales	lb.	.08 @	.09
blue, bales	lb.	.10 @	.12
Colombo, bales	lb.	.12 @	.13
Cranesbill, bales	lb.	.08½@	.10
Culvers, bales	lb.	.18 @	.20
Dandelion, bales	lb.	.17 @	.18
Doggrass, cut, bales	lb.	.11 @	.12
Echinacea, bales	lb.	.28 @	.29
Elecampane, bales	lb.	.08 @	.09
Galangal, bales	lb.	.13 @	.14
Gelsemium, bales	lb.	.10 @	.10¼
Gentian, bales	lb.	.09 @	.10
ground, barrels, boxes	lb.	.12 @	.13
powdered, barrels, boxes	lb.	.12½@	.13½
Ginger (see Spices, page 8).			
Ginseng, cultivated, cases	lb.	8.00 @	12.00
wild, Southern, cases	lb.	8.50 @	10.00
fibers, cases	lb.	3.75 @	4.00
Golden seal, bales	lb.	3.90 @	4.00
powdered, boxes	lb.	4.60 @	4.70
Hellebore, white, pwd., bbls	lb.	.11 @	.12
Hydrangea, bales	lb.	.08 @	.09
Ipecac, Cartagena, bags	lb.	2.65 @	2.70
powdered, boxes	lb.	3.10 @	3.15
Rio, bags	lb.	2.70 @	2.75
powdered, boxes	lb.	3.10 @	3.15
Jalap, bales	lb.	.19 @	.20
powdered, barrels, boxes	lb.	.26 @	.27
Kava kava, bales	lb.	.15 @	.16
Lady slipper, bales	lb.	.90 @	.95
Licorice, bales	lb.	.06 @	.08
powdered, barrels, boxes	lb.	.09 @	.10
selected, cases	lb.	.13½@	.16
Lovage, American, bales	lb.	.35 @	.40
foreign, bales	lb.	.20 @	.22
Manaca, bales	lb.	.17 @	.18
Mandrake, bales	lb.	.13 @	.14
Musk, bales	lb.	.10 @	.11
Orris, Florentine, bags	lb.	.13½@	.14
fingers, cases	lb.	.95 @	1.00
powdered, barrels, boxes	lb.	.15½@	.16
Verona, bales	lb.	.12½@	.13
powdered, barrels, boxes	lb.	.14½@	.15
Pareira brava, bales	lb.	.11 @	.12
Pellitory, bales	lb.	.17 @	.18
Pink, true, bales	lb.	.58 @	.60
Pleurisy, bales	lb.	.23 @	.24
Poke, bales	lb.	.08 @	.09
Queen of the Meadow, bags	lb.	.07 @	.08
Rhatany, bags	lb.	.12 @	.13
Rhubarb, high dried, cases	lb.	.40 @	.41
powdered, barrels, kegs	lb.	.45 @	.47
Sarsaparilla, American, bales	lb.	.20 @	.21
Honduras, bales	lb.	.53 @	.54
Mexican, bales	lb.	.20 @	.21

(Continued on page 78)

ESSENTIAL OILS

Amyris Sold Only on Affidavit—Exhaustion of All Outside Lots Strengthens Cassia on the Spot—Citrous Oils Firm

Outstanding price features in the market for essential oils last week included advances in amyris, cassia, and Algerian geranium oils. Numerous developments in sales conditions made the week one of interest, if not one of high volume of business and entirely satisfactory prices. Quotations, as a whole, seemed to be firm and competition was tempered by the fact that a very fair demand within jobbing limitations had prevailed most of the week under review.

The advance in prices for amyris was connected with restrictions thrown around the article by orders from government officials. The orders place sales of amyris on an affidavit basis. Every pound must be sold under an affidavit as to buyer and use of the article. It is the intention of the government to end the sale of amyris under labels reading "Sandalwood Oil."

Cheaper lots of cassia were reported sold into consumption. Such lots had been held mainly in outside quarters and exhaustion of such holdings put control of the market back into the hands of the regular dealers. Higher prices were said to shape the market more closely with replacement costs.

Geranium oils were all firm and the advance in Algerian oil was directly related with the recent improvement in prices for Bourbon material. In fact, Algerian had been underpriced for a long time, and therefore the advance last week was in line with expectations of most factors in this market.

Citrous oils showed little change. The future was said to depend mainly on demand for fresh fruit this year. Prices for oil in the Messina market have been generally firmer and somewhat higher than dealers here cared to pay for either prompt shipments or for deliveries to be made after the first of the year. Demand in this market lagged well within the cribbed, cabined and confined limits conspicuous for many weeks.

Little change came over the American oils during the past week. Peppermint was offered not at all freely from the market in the Middle West; with one exception, the principal dealers were aloof so far as offerings were concerned. Spearmint seemed to be in quite firm position. Important offerings of tansy, wormwood, and pennyroyal had yet to be made. Wormseed alone seemed to be clearly defined. Though rains hampered operations last week, distillation has begun in the Baltimore area and the outlook is for a crop of satisfactory size.

Price Changes

Prices were changed during the past week as follows:—

Advanced	Reduced
Almond, sweet true, 2½c. per lb.	None.
Amyris, 5c. per lb.	
Cassia, 10c. per lb.	
Ceranium, Algerian, 35c. per lb.	

Comparative Values

Index numbers compiled from twenty typical essential oils on the basis of a normal of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
166.6	166.3	168.4	124.1

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Almond.—Sweet true oil was 2½c. higher at 70c. to 72c. per pound, according to quantity, being a reflection of a higher production and replacement cost.

Amyris.—Sale of this article, save under affidavit as to buyer and use, has been prohibited, according to reports in this market. Misbranding of the article when offered at retail was said to have led to the order.

Bergamot.—Foreign prices were firm and those on spot were steady. However, demand here lagged to the point of being for jobbing purposes only.

Bois de Rose.—Replacement costs of both Brazilian and Cayenne oils were very steady at the primary sources of supply. Local quotations were well supported by steady if not expansive demand for prompt deliveries.

Camphor.—Business was fair in volume, but the quantities taken were usually conservative in size and indicative of a moderate consuming requirement at the present time. Prices were firm to steady.

Cassia.—Cheaper lots in outside hands were reported removed from the spot market, giving a stronger tone to the prices quoted by regular dealers. The spot market was up 10c. to the basis of $2.35 to $2.50 per pound.

Citronella.—Fair trade and steady prices were the rule. Offerings were ample on spot and the more distant positions of shipment material seemed to be available in quantities sufficient to meet the present call for later arrivals.

Clove.—Spice was higher. The quotations for futures were on an ascending scale, the farther off positions being higher in price than those for prompt or nearby despatch. Vanillin makers working from clove oil were reported receiving a rebate of 3½c. per pound on their spice. All this has given the clove oil market a considerably firmer position on the spot.

Coriander.—This article was reported to be much neglected. Prices were about nominal, lacking sales.

Cubeb.—The minimum spot price was $3 to $3.25 per pound, though reports of lower levels had been recently noted in a rather wide circulation. Demand was strictly routine.

Erigeron.—Lack of trading prevented development of a sound market position on spot. Prices from the Middle West were believed to be fairly easy, though little buying has been done as yet.

Eucalyptus.—Business showed some pickup in some quarters; not all reported a gain in volume, however. Prices were steady here and in the primary market.

Geranium.—The advance in prices for Bourbon oil have caused a sympathetic rise in quotations for Algerian oil. The latter article last week was 35c. higher at $3.75 to $4.25 per pound and very firm thereat. Bourbon was strong at the recent rise to $4.50 to $4.75.

Ginger.—A strong market for raw material has been without continued effect on quotations for distilled oil. The prices for the latter article were reported steady throughout the past week under a quiet demand from consuming channels.

Lavender.—Prices remained unchanged, but they were strong. The foreign situation was one of special strength, especially as applied to the oils of high ester content. Underproduction by reason of lower yield from a smaller flower crop has given a strong undertone to whatever market may handle this oil.

Lemon.—Cheaper lots held in outside hands were said to have been absorbed, leaving the spot market for Messina oil potentially firm despite the somewhat narrow demand for immediate deliveries. Foreign reports varied, but favored the strong side of the future, mainly. Much was said to depend on the demand for fruit. If it be good this year oil would be generally firm if not actually strong abroad, according to some here.

Lime.—The hurricane may have damaged the West Indian cultivation of the lime, but so far as reports last week were concerned, nothing was said regarding the same. Prices here were firm because of stocks being quite small.

Orange.—Attempts to learn the extent of damage, if any, to the West Indian orange plantations were unsuccessful last week. However, no adverse news was ventured by the primary market itself. Demand on the spot for any kind of orange oil was quite small and most irregular.

Patchouli.—Stocks were rather plentiful and the tendency toward compe-

Current prices on essential oils, formerly printed on page 8, are now printed at the end of this market report.

Valuable information on Imports and Exports of Essential Oils is given in port lists beginning on page 5.

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ESTABLISHED 1895

tition was quite pronounced in all directions. Sales were mainly for jobbing needs.

Peppermint.—But a single one of the middlewestern dealers have shown a disposition to offer during the past week. Others were still aloof from the market and in that respect were like local dealers. No disposition to purchase save in a very limited way to cover immediate needs has developed in this market. Everyone was disposed to await further developments in the primary market.

Rose.—While the foreign market was reported to be very firm, no further rise in prices has developed. Moderate production of oil showing good quality was declared to be held very firm and free from competitive influence.

Spearmint.—Undertones were quite firm. While demand lagged here, stocks could hardly withstand a major expansion in demand for spot goods. The primary market was still aloof, failing to offer in substantial quantities.

Tansy.—Slow request in this market was reported and a few transactions confirmed $4.15 to $4.25 per pound as inside at the moment.

Wormseed. — Distillation was reported just begun; rains during the past week caused some delay in operations. The prospect for a good production was said to be excellent. Prices here were confirmed at $2.35 to $2.50 per pound.

Current Prices

(For late price changes, see page 2)

Essential Oils

Almond, bitter, artificial (see benzaldehyde, Coaltar Products).			
natural, bottles	lb.	2.75 @	3.00
BPA, bottles	lb.	2.90 @	3.00
sweet, true (expressed) cases	lb.	.70 @	.72
Apricot, kernel, drums	lb.	.44 @	.45
Amyris, balsamifera L (so-called "W. I. sandalwood"), tins	lb.	2.25 @	2.50
Angelica root, bottles	lb.	18.00 @	19.00
Anise, lead free, U.S.P., tins	lb.	.56 @	.59
Bay, West Indian, tins	lb.	1.75 @	2.00
Bergamot, artificial, cans	lb.	2.00 @	2.25
natural Messina, coppers	lb.	5.00 @	6.25
Betula (see oil, sweet birch).			
Birch tar, crude, tins	lb.	.11 @	.14
rectified, tins	lb.	.40 @	.43
Bois de rose, Brazilian, tins	lb.	1.75 @	2.00
Cayenne, tins	lb.	2.50 @	2.75
Cade, U.S.P., tins	lb.	.25 @	.26
Cajeput technical, drums	lb.	.70 @	.75
U.S.P., IX, tins	lb.	.75 @	.77
U.S.P., X, tins	lb.	1.15 @	1.30
Calamus, tins	lb.	3.25 @	3.50
Camphor, sassafrassy, drums	lb.	.15½@	—
white, drums	lb.	.10½@	.11
Cananga, native, tins	lb.	3.20 @	3.45
rectified, tins	lb.	3.65 @	3.85
Capsicum (oleoresin), U.S.P., VIII. cans	lb.	3.25 @	3.50
Caraway, U.S.P., tins	lb.	1.75 @	1.85
Cardamom seed, bottles	lb.	26.00 @	28.00
Carvol, bottles	lb.	3.75 @	4.00
Cassia, redistilled, U.S.P., cans.	lb.	2.35 @	2.50
Cedarleaf, tins	lb.	1.00 @	1.10
Cedarwood, drums, tins	lb.	.26 @	.28
Celery seed, bottles	lb.	7.50 @	7.75
Cinnamon, Ceylon, bottles	lb.	10.00 @	10.50
Citronella, Ceylon, cans	lb.	.43 @	.45
drums	lb.	.41 @	.43
Java, drums	lb.	.48 @	.49
Clove, U.S.P., cans	lb.	1.75 @	1.80
Coriander seed, bottles	lb.	12.50 @	12.75
Croton, U.S.P., tins	lb.	.85 @	.90
Cubeb, U.S.P., tins	lb.	3.00 @	3.10
Cumin, bottles	lb.	7.00 @	7.50
Dill, bottles	lb.	3.75 @	5.75
Erigeron, tins	lb.	1.85 @	2.00
Eucalyptus, Australian, cases	lb.	.58 @	.60
drums	lb.	.57 @	.58
Fennel seed, sweet, tins	lb.	.80 @	.85
Gaultheria (see oil, wintergreen leaf).			
Geranium, Algerian, rose, tins	lb.	3.75 @	4.25
Bourbon, tins	lb.	4.50 @	4.75
Turkish, tins	lb.	3.00 @	3.25
Ginger, distilled, bottles	lb.	5.50 @	6.00
Hemlock, tins	lb.	.95 @	1.00
Juniper berries, terpeneless, tins	lb.	14.00 @	16.00
U.S.P., tins	lb.	2.40 @	3.00
wood, tech., not U.S.P., tins	lb.	.50 @	.75
Lavender flowers, French, U.S.P., tins	lb.	2.60 @	5.00
garden, tins	lb.	.40 @	.45
spike, French, tech., tins	lb.	1.00 @	1.10
Spanish, tech., tins	lb.	.90 @	1.10
Lemon, American, tins	lb.	4.15 @	4.20
Messina, Copper, tins	lb.	3.75 @	4.25
Lemongrass, native, tins	lb.	.90 @	.95
Lime, distilled, tins	lb.	6.00 @	6.25
expressed, tins	lb.	12.00 @	12.50
Linaloe wood, cases	lb.	2.35 @	2.40
Mace, distilled, tins	lb.	1.65 @	1.75
Mustard, artificial, U.S.P., bottles	lb.	1.90 @	2.00
natural, U.S.P., bottles	lb.	9.00 @	10.00
Neroli, bigarde, bottles	lb.	75.00 @	100.00
petale, bottles	lb.	85.00 @	115.00
Nutmeg, U.S.P., tins	lb.	1.65 @	1.75
Orange, sweet, distilled, tins	lb.	6.50 @	6.75
expressed, American, tins	lb.	6.50 @	6.75
Messina, U.S.P., coppers	lb.	7.00 @	8.50
West Indian, tins	lb.	5.75 @	6.00
Origanum, commercial tins	lb.	.25 @	.50
Palmarosa, tins	lb.	3.00 @	3.25
Patchouli, bottles	lb.	6.15 @	6.50
Pennyroyal, American, tins	lb.	1.85 @	2.00
imported, tins	lb.	1.20 @	1.25
Peppermint, natural, cases	lb.	3.20 @	3.30
redistilled, U.S.P., tins	lb.	3.50 @	3.75
Petitgrain, Paraguay, tins	lb.	1.75 @	1.85
Pimento berries, tins	lb.	2.65 @	4.00
Pine needle, Siberian, cans	lb.	.70 @	.80
Rose, artificial, bottles	oz.	2.00 @	8.00
natural, coppers	oz.	12.50 @	15.00
Rosemary, flowers, technical, tins	lb.	.32½@	.35
U.S.P., tins	lb.	.45 @	.50
Safrol (see Perfume Materials, page 8).			
Sandalwood, E I., U.S.P., tins	lb.	7.00 @	7.10
Sassafras, artificial, drums	lb.	.25 @	—
natural, tins	lb.	.80 @	1.15
Savin, tins	lb.	1.65 @	1.75
Spearmint, U.S.P., cases	lb.	4.35 @	4.50
Spruce, tins	lb.	.95 @	1.00
Sweet birch, Northern, tins	lb.	2.23 @	2.75
Southern, tins	lb.	1.70 @	1.80
Tansy, tins	lb.	4.15 @	4.25
Terpineol (see below).			
Thyme, red, tins	lb.	.70 @	.80
white, tins	lb.	.85 @	.90
Vetiver, Bourbon, bottles	lb.	6.00 @	6.75
Wintergreen leaf, Northern, tins.	lb.	7.00 @	8.50
Southern, tins	lb.	3.50 @	3.75
sweet birch (see oil, sweet birch).			
synthetic (see methyl salicylate, Drugs and Fine Chemicals).			
Wormseed, tins	lb.	2.35 @	2.50
Wormwood, tins	lb.	16.00 @	18.00
Ylang ylang, Bourbon, bottles.	lb.	16.00 @	13.00
Manila, bottles	lb.	28.00 @	36.00

Perfume Materials

Acetophenone, bottles	lb.	3.00 @	4.00
Amyl butyrate, bottles	lb.	1.60 @	3.00
salicylate, cans	lb.	1.15 @	2.00
Anethol, bottles	lb.	1.20 @	1.50
Anisic aldehyde, C.P. (liquid aubepine), bottles	lb.	3.25 @	3.75
Benzaldehyde, U.S.P. (see Coaltar Products).			
Benzyl acetate, F.F.C., bottles.	lb.	1.05 @	1.35
alcohol, A.M.A., cans	lb.	1.00 @	2.25
Benzyl benzoate, A.M.A., F.F.C., tins	lb	1.20 @	1.40
formate, cans	lb.	3.15 @	4.00
Benzylidin acetone, bottles	lb.	3.25 @	3.75
Borneol, bottles	lb.	2.75 @	3.00
Cinnamic acid (see Industrial Chemicals).			
alcohol, bottles	lb.	3.35 @	5.75
aldehyde, F.F.C., bottles	lb.	2.50 @	3.00
Citral, 100 percent, cans	lb.	2.75 @	3.00
Citronellal, bottles	lb.	2.75 @	4.00
Citronellol, bottles	lb.	4.00 @	5.35
Coumarin, C.P. (see Drugs and Fine Chemicals).			
Diphenyl oxide, bottles	lb.	.90 @	1.15
Diphenylmethane, bottles	lb.	1.75 @	2.00
Ethyl cinnamate, bottles	lb.	3.50 @	4.50
Eucalyptol (see Drugs and Fine Chemicals).			
Eugenol, cans	lb.	2.50 @	3.00
Geraniol, cans	lb.	4.50 @	5.00
Geranyl acetate, bottles	lb.	2.75 @	6.00
Heliotropin, crystals, cans	lb.	1.75 @	4.00
Indol, C-P, bottles	oz.	2.60 @	9.50
Ionone, bottles	lb.	5.00 @	14.00
Isoeugenol, bottles	lb.	3.80 @	4.25
Linalol, cans	lb.	3.00 @	5.00
Linalyl acetate, bottles	lb.	3.50 @	7.25
Methyl anthranilate, bottles	lb.	2.25 @	2.40
benzoate, bottles	lb.	1.85 @	2.25
cinnamate, bottles	lb.	3.75 @	5.00
hepetone, bottles	lb.	9.00 @	10.00
heptine, carbonate, bottles	lb.	20.00 @	26.00
salicylate (see Drugs and Fine Chemicals).			
Musk, ambrette, cans	lb.	6.00 @	6.75
artificial, ketone, cans	lb.	7.25 @	8.30
xylol, 100 percent, cans	lb.	2.15 @	2.75
Myrbane (see Coaltar Products).			
Neroiin crystals, cans	lb.	1.40 @	2.65
Phenylacetic acid, bottles	lb.	3.00 @	5.50
aldehyde, bottles	lb.	5.00 @	8.25
Phenylethyl alcohol, bottles	lb.	4.75 @	5.75
Rhodinol, bottles	lb.	6.25 @	20.00
Safrol, domestic, drums, tins	lb.	.28 @	.31
imported, druma, tins	lb.	.28 @	.30
Skatol, bottles	oz.	4.00 @	10.00
Terpineol, C.P., drums	lb.	.34 @	.35
cans	lb.	.36 @	.37
Terpenyl acetate, cans	lb.	.90 @	1.25
Thymol (see Drugs and Fine Chemicals).			
Vanillin (see Drugs and Fine Chemicals).			
Yara yara crystals, cans	lb.	1.50 @	3.00

The opium committee of the League of Nations has asked the league council to name a committee of three to study the problems of opium smoking and smuggling in the Far East.

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Gums and Waxes

Carnauba Offered More Freely for Shipment From New Crop—African Beeswax Scarce Everywhere—Shellac Up

Stronger foreign and domestic markets for beeswax and Japan wax, plus a moderate increase in offerings of new crop carnauba for shipment, were featured developments in the market for gums and waxes last week. Gums as a group were without change in prices, displaying a firmness of undertone that compared favorably with the market position recently reported. Demand generally covered smaller needs of a numerous group of buyers for consumption. Stocks were mostly fair in size and were so constituted as to keep competition closely confined in narrow quarters.

African beeswax was strong everywhere. Scarcity was the rule, especially on spot. Competitors had to depend on fellow dealers for a supply and those interested in the purchase of shipment parcels were unable to satisfy their craving during the period under review. Bleachable waxes were also firm, though the call was perhaps less pressing than it had been.

Cables from Brazil recorded a gain in the quantity of carnauba wax offered for shipment. The gain in offerings was unaccompanied by any reduction in price or any tendency to accept bids which some local makers were disposed to make on a firm basis. The increase was due to the influence of new crop. The local market was firm. Scarcity of No. 3 chalky was emphasized along with the nominal position of No. 2 North Country.

Japan wax looked up considerably, according to some importers. Others without a spot supply stated that in their opinion the market was still highly competitive with price shading the rule rather than the exception.

Gums were without much of importance. Aloe remained strong. Arabic was subject to liberal spot offerings and prices contrasted with the firmness of values in the foreign markets. Benzoin from Sumatra was not overstocked and the requirements of manufacturing consumers were fortunately small, else prices would probably have been advanced.

Shellac bleachers advanced prices during the past week, but the importers made no change in spot quotations for ¾ T. N. and superfine. Second-hands cut the bonedry market rather sharply. London and Calcutta showed little change in prices, being but fractionally higher.

Price Changes

Prices were changed during the past week as follows.

Advanced	Reduced
Shellac, bonedry, 2c. per lb.	None.
T. N., Calcutta, ½c. per lb.	
London, October, 3-10c. per lb.	
December, ½c. per lb.	

Current prices are given at the end of this report. Price changes made Saturday up to noon and other last-minute market developments are reported on page 2.

Gums

Aloe.—Light trading but firm prices was the rule last week and throughout the period there was a conspicuous lack of competition in local circles. Stocks continued to be comparatively small.

Arabic.—Though foreign prices remained firm, the spot position seemed to be so competitive as to suggest that special terms prevailed on some transactions. Stocks here were adequate for more than present needs.

Asafetida.—Fair-sized stocks but a not too active demand for the same contributed little to the further development of this market. Replacement costs were reported to be fairly high.

Benzoin.—Stability of prices seemed to be the outstanding excellence of this article from Sumatra. The moderate call was offset by the absence of much U.S.P. material ready for immediate delivery. Replacement costs were also firm.

Camphor.—Due to competition between the Japanese sellers of natural camphor and the German producers of synthetic, information in this market suggested that the Japanese would soon name a further reduction in prices. Determination to recover lost markets was arrived at during the last general conference held in Japan. The local market proved to be very steady at unchanged prices last week.

Ghatti.—Light supplies counted much in the maintainence of a high level of spot prices during the past week. Trade was good also, tending toward the elimination of most local competition.

Guaiac.—Inquiry was fair and buyers found little difficulty in filling their needs at prices which appeared to be well maintained and stabilized at recently prevailing levels.

Scammony.—Since the recent decline, no change in prices has developed. A firmer undertone seemed to be in the course of development and some look for a moderate increase in asking quotations.

Current prices on gums, waxes, and shellac, formerly printed on pages 4 and 8, are now printed at the end of this market report.

Waxes

Bees.—African wax was scarce, spot and abroad. Holdings here were so small that some considered this market strictly nominal. Bleaching waxes were firm but without formative development. Prices were well maintained.

Carnauba.—Offerings of wax from the primary market were reported by some to be slightly larger and more liberal. As to prices, however, shippers were firm to strong and refused to either quote lower quotations or to accept bids in most instances. Spot stocks of No. 3 chalky were found to be low and the market for that grade was close to being strong. A wide spread in prices for No. 2, yellow, existed without satisfactory explanation being advanced. Quotations were very steady on the spot.

Japan.—Some found the market firmer, indicating a withdrawal or reduction in combative tactics recently pursued in some quarters through the medium of intensive competition. Quotations on spot for standard brands were ¼c. higher at 18c. to 18½c. per pound.

Shellac

The feature of the shellac market last week was a 2c. advance named by shellac bleachers as against markets showing little net change at Calcutta and London. Bleachers established the following schedule:—100 barrels, or more, 59c. to 60½c. per pound; 50 to 99 barrels, 60c. to 61½c.; 10 to 49 barrels, 61c. to 62½c.; 1 to 9 barrels, 62c. to 63½c. Bleachers lined up as follows on the basis of minimum quotations: One quoted 59c.; one asked 59½c.; three quoted 60c.; and one named 60½c. Quotations for T. N. and superfine on the spot showed no change. Business was reported fairly brisk early in the week. This condition applied to spot as well as primary market sales. In addition to liberal orders placed during the period there were numerous inquiries from the electrical trade and the record pressers. The latter were noted asking for prices to the end of the year in some instances.

London Shellac Prices

The following quotations in shillings per hundredweight have been converted to cents per pound, the calculations being based on the sterling exchange of $4.865. The result is the price of shellac in London, not in the United States; the landed price here would be approximately 1c. more:—

	September 21		September 14	
	Shillings.	Cents.	Shillings.	Cents.
October	223½	48.4	222½	48.1
December	215	46.6	212½	46.1

Day-to-day closing prices were as follows:—

	October.	December.
September 15	226s.	217s. 6d.
September 17	228s.	216s.
September 18	228s.	218s. 6d.
September 19	228s.	218s. 6d.
September 20	227s.	219s.
September 21	228s. 6d.	215s.

Valuable information on Imports and Exports of Gums, Waxes, and Shellac is given in port lists beginning on page 5.

H. V. F. PRICE Inc., 130 PEARL ST. New York, N. Y.
SHELLAC Cutch Gambier Sumac

James W. Byrnes Shellac Co., Inc.
GUM SHELLAC—BLEACHED SHELLAC and SHELLAC VARNISHES
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HALOWAX CORPORATION
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Bayberry, Ceresine, Carnauba, Paraffine and Japan Waxes, Water White Mineral Oil Pearl Floor Wax Polish

Gum Tragacanth - Gum Arabic
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The Duplex Seal is the ideal seal for tin packages for these reasons:—

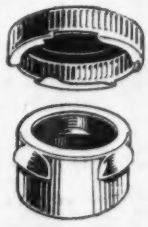
1 Mechanical simplicity and scientific correctness — assuring an absolute and permanent air-tight seal.
2 Liners to meet chemical and physical requirements of the product.
3 Tamper-proof inner seal if desired.
4 Standard designs or special seals having trade-marks handsomely embossed or lithographed.
5 Quick application by means of hand closing tools or power closing machines, where volume is necessary.
6 It cannot "creep" or work loose in shipment regardless of rough handling or transportation conditions.
7 Opened by quarter turn of the wrist. Closed with the same easy motion—a *positive* re-sealing device.

1—Look at the illustration.

Horizontal metal flanges or undergrips on the cap which lock under the lobes on the Duplex Nozzle.

Both seal and nozzle are so designed that when the seal is placed on the can and rotated a quarter turn of the wrist to the right, the metal flanges pass under the lobes and set up a positive spring pressure which holds the liner down firmly at all times and creates a positive sealing.

All can companies can supply cans provided with Duplex Nozzles.



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State of Kentucky Representatives:
Lewis & Culp
226 North 15th St., Louisville, Ky.
State of Texas Representatives:
James Brokerage Co.
329 First National Bank Building
Houston, Texas

Calcutta Shellac Prices

Quotations for USSA T.N., c.&f. New York, were as follows:—

	Sept. 21.	Sept. 14.
September-October	45¼c.	44¾c.
September-November	45½c.	45c.
November-December	44¾c.	..

Reports concerning the autumn crops in India indicated an excellent production, with a somewhat above normal addition to stocks to carry consuming trades through until the next Bysacki. Buying in Calcutta was reported rather heavy during the early part of the week, thus continuing the large business noted during the previous period. Toward the close of last week, however, a marked decrease in buying was noted.

London Shellac Statistics

Statistics covering the landings, deliveries and stocks in the London market from September 1 to September 13 were reported as follows, under date of September 14:—

	Packages			
	Orange.	Garnet.	Button.	Totals.
Stock, Sept. 1..	13,329	544	1,369	15,242
Landed, Sept..	2,626	290	260	3,176
Totals	15,955	834	1,629	18,418
Deliveries, Sept.	2,428	118	192	2,738
Totals	13,527	716	1,437	15,680

Shellac Ships Enroute

The following tabulation gives the names of shellac carriers and sailing dates from Calcutta, where last reported and the date, and the probable arrival date at New York:—

Walton Hall; August 5; —; September 27.
William Penn; August 15; Colombo, August 24; September 27.
Steel Worker; August 15; Port Said, September 8; October 4.
Tymeric; August 22; Colombo, August 30; October 17.
Egremont; August 22; Colombo, August 29; October 5.
Matra; August 22; Suez, September 10; October 6.
Kabinga; September 2; Colombo, September 10; October 22.
Algic; September 3; Colombo, September 10; October 16.
Matheran; September 9; —; October 8.
City of Baroda; September 13; —; October 28.

Current Prices

(For late price changes, see page 2)

Gums

Aloe, Barbados, true, cases	lb.	1.00 @	1.10
Cape, cases	lb.	.14 @	.15
Curacao, cases	lb.	.16 @	.17
gourds, barrels	lb.	.45 @	.50
Socotrine, kegs	lb.	.43 @	.45
Ammoniac, tears, cases	lb.	.48 @	.50
Arabic (acacia), amber sorts, cleaned, bags	lb.	.10¾@	.12
first sorts, bags	lb.	.24 @	.25
second sorts, bags	lb.	.22 @	.23
white, bags	lb.	.22 @	.25
powdered, barrels, kegs	lb.	.17½@	.18
Asafetida, cases	lb.	.24 @	.25
powdered, barrels, boxes	lb.	.50 @	.55
Benzoin, Siam, cases	lb.	1.30 @	1.60
Sumatra, cases	lb.	.40 @	.42
Camphor, refined, Japanese, slabs, cases	lb.	.60 @	.61
tablets, tins	lb.	.73 @	.74
powdered, barrels	lb.	.67 @	.68
Chicle, bags	lb.	.58 @	.60
Euphorbium, cases	lb.	.15 @	.16
Galbanum, cans	lb.	1.10 @	1.15
Gamboge, mass or pipe, cases	lb.	1.15 @	1.20
powdered, barrels	lb.	1.25 @	1.30
Ghatti, soluble, bags	lb.	.17 @	.19
superior, bags	lb.	.10 @	.11
Gualac, cases	lb.	.32 @	.34
strained, cases	lb.	.70 @	.71
Karaya, powdered, barrels, boxes, drums	lb.	.12 @	.30
Kino, tins	lb.	.55 @	.60
Mastic, cases	lb.	.62 @	.63
Myrrh, cases	lb.	.85 @	.90
Olibanum, siftings, cases	lb.	.12½@	.13
tears, cases	lb.	.14½@	.26
Opium (see Drugs, page 6).			
Sandarac, cases	lb.	.26 @	.30
Scammony, cases	lb.	1.20 @	1.35
Senegal, picked, bags	lb.	.22 @	.24
sorts, bags	lb.	.10¾@	.12
Storax, cases	lb.	.37½@	.40
Tragacanth, Aleppo, 1, cases	lb.	1.55 @	1.60
No. 2, cases	lb.	1.45 @	1.50
No. 3, cases	lb.	1.20 @	1.25
No. 4, cases	lb.	1.10 @	1.20
No. 5, bags	lb.	.85 @	.95
No. 6, bags	lb.	.60 @	.70
sorts, bags	lb.	.50 @	—
Turkish, No. 1, cases	lb.	1.20	Nom.
No. 2, cases	lb.	.75 @	.80
No. 3, bags	lb.	.55 @	.60
No. 4, bags	lb.	.40 @	.50

Waxes

Bayberry, imported, bags	lb.	.30 @	.32
Beeswax, white, pure, cases	lb.	.50 @	.55
yellow, African, bags	lb.	.36 @	.37
Brazilian, bags	lb.	.40 @	.41
Chilean, bags	lb.	.39 @	.40
refined, cases	lb.	.41 @	.42
Candelilla, bags	lb.	.23 @	.24
Carnauba, flor., bags	lb.	.48 @	.49
No. 1, bags	lb.	.45 @	.46
No. 2 North Country, bags	lb.	.35	Nom.
yellow, bags	lb.	.41 @	.44
No. 3 chalky, bags	lb.	.27 @	.28
North Country, bags	lb.	.27 @	.28
Ceresin, domestic, white, bags	lb.	.10 @	.11
yellow, bags	lb.	.09 @	.10
imported, snow white, 145-147 m.p., bags	lb.	.21 @	.23
154-156 m.p., bags	lb.	.23 @	.25
158-160 m.p., bags	lb.	.25 @	.27
160-165 m.p., bags	lb.	.30 @	.32
yellow, 150-153 m.p., bags	lb.	.12½@	—
135-138 m.p., bags	lb.	.13 @	—
157-160 m.p., bags	lb.	.13½@	—
167-170 m.p., bags	lb.	.14 @	—
Japan, cases	lb.	.17¾@	.18
Montan, crude, bags	lb.	.07 @	.07½
Ozokerite, black, 160 m.p., bags	lb.	.24 @	.25
green, 170 m.p., bags	lb.	.26 @	.30
Spermacetti blocks, cases	lb.	.26 @	.27
cakes, cases	lb.	.27 @	.28

Shellac

Bone dry, bleachers', 100 barrels or more	lb.	.59 @	.60½
50 to 99 barrels	lb.	.60 @	.61½
10 to 49 barrels	lb.	.61 @	.62½
1 to 9 barrels	lb.	.62 @	.63½
refined, barrels	lb.	.74 @	.75
D.C., cases	lb.	.62 @	.63
Diamond I, cases	lb.	.62 @	.63
Superfine, bags	lb.	.50 @	.51
T.N., bags	lb.	.47 @	.48
V.S.O., cases	lb.	.62 @	.63

Olive Culture Congress Opens in Tunis Oct. 26

WASHINGTON, Sept. 19, 1928.

The ninth International Olive Culture Congress will be held in Tunis, October 26 to November 8. Discussions will not be limited to the strictly cultural side of the olive industry, according to information sent to the Department of Commerce by the consul at Tunis. On this side, the topics will include the determination and classification of the varieties of olives, ways of multiplying olive trees, trimming for formation and yielding, cultural attendance, and fertilizing.

Other problems of an international character and broader interest will be discussed. Particular attention will be given to means of combatting diseases and parasites of olive trees. Olive oil will be discussed with respect to extraction, refining, preservation, definition and denomination of qualities. Laws against frauds, legislative and administrative measures will also be discussed.

Margarin Output in July

Production of margarins in July was reported by manufacturers to the Bureau of Internal Revenue as follows:—

	Pounds	
	July, 1927.	July, 1928.
Uncolored margarin	16,229,041	20,434,798
Colored margarin	984,824	1,009,135
Totals	17,213,865	21,443,933

HEYDEN CHEMICAL CORPORATION

The Board of Directors has this day declared a dividend of seven per cent. (7%) on the Preferred Stock, being for the yearly period ended September 30, 1928, and payable October 1, 1928, to stockholders of record on September 25, 1928.

F. WILLIAM WECKMAN, Secretary.
September 15, 1928.

Machinery For Sale

1—24 in. x 24 in. Sperry Filter Press.
2—Abbe 4 ft. x 5 ft. Pebble Mills.
2—100 gallon Abbe Pebble Mills.
3—16 in. x 40 in. 3—Steel Roller Ink and Paint Mills.
1—Ross 40 gallon Mammouth Pony Change Can Mixer.
5—2000 gallon Storage Mixing Tanks.
28—20 in. Kent Stone Paint Mills.
3—30 in. Day Stone Paint Mills.

We are large buyers of used equipment—what have you to offer?

IRVING BARCAN COMPANY
30 Church Street New York
Telephone Cortlandt 2195

Excellent Used Equipment

CENTRIFUGALS (Extractors)
12—20, 26, 30, 38, 48, 54 and 60" Tolhurst, Troy, Fletcher makes.

DISTILLING EQUIPMENT
10—Copper Columns, 12 to 60" dia.
Lummus 32" sq. Copper.
3—Lummus Stills, 300, 750 and 1,000 gals.
5—Tubular Conds., Copper, 50 to 1,200 sq. ft.

COMPRESSORS
1—Curtis Vert. Duplex 8x8".
1—Chicago Pneumatic, Horiz. 6x6".

DRYERS—KILNS
1—Proctor Automatic Conveyor Dryer.
4—Proctor Atmos. Dryers, 2, 4 and 6 trucks.
9—Devine, Nos. 11, 23 and 32 (vac. shelf).
2—Stokes 2' 6"x3' and 3x15' Rotary vac.
2—Bonnot, 6x60'. Rotary Kilns.
1—Bartlett & Snow, 3x25' Rotary Dryer.

EVAPORATORS AND PANS
2—Zaremba and Scott, single effects.
3—40, 75 and 150 gal. Copper Vac. Pans.

FILTER PRESSES
8—Iron, 12, 18, 24, 30, 36 and 42 in.
6—Wood, 24, 30, 32, 36 and 42 in.
4—Kelly, No. 150, 250 and 450.
7—Sweetlands, Nos. 2, 5, 10, 11 and 12.
4—Oliver, 6'x4', 8'x6', 8'x12'.

GRINDERS AND PULVERIZERS
6—Raymond, Nos. 1, 0, 00 and 0000.
4—Shutz-O'Neill, 16, 20, 22 and 28 in.
3—Williams Grinders and Crushers.

P..INT AND INK MILLS
5—Day, Kent and Rose, 9"x28", 12"x30" and 16"x40".
8—12, 18, 20, 24 and 36" Iron and Stone Mills.
6—Pebble and Jar Mills, Abbe Engineering and Paterson make.

KETTLES
9—Jack, open and closed, 50 to 1,000 gals.
8—Copper Kettles, 20 to 150 gals.
4—Pfaudler Enam., 1,000 to 3,000 gals.

MIXERS
5—W. & P. Jack and Plain, 50 to 300 gals.
4—Dough Mixers, 1 to 5 bbls.
3—Pony and Change Can Mixers, 8 to 40 gals.
7—Day, sizes A, B, C, D and F.

PUMPS
20—Rotary Centrif. and Piston (Std. Makes).
3—16x20x36", 11x18x20", Amer. Marsh Vacuum (dry).
4—Devine and Buffalo Horiz. Vacuum.

TANKS (Wood, Steel and Copper)
20—500 to 20,000 gals. capacity.
3—1,400 gal. copper (closed).

MISCELLANEOUS
Crocks; Lead Lined Equipment; Generators; Engines; FW Heaters; Hoists; Rails; Locomotives; Boilers, Coal and Gas; Condensers.

SPECIAL
1—Devine 3x9' Double Drum Vacuum Dryer.
1—6' dia. Buffalo Vac. Crystallizer.

Wire, Phone, Write for Complete Lists! We Will Buy Your Surplus Equipment!

STEIN-BRILL CORPORATION
25 Church Street New York City
Rector 3168-9

Miscellaneous Oils

(Continued from page 34)

Fatty Acids

Coconut oil, mills, tanks	lb.	.11	Nom.
Corn oil, mills, tanks	lb.	.08⅝	Nom.
Cottonseed oil, mills, barrels	lb.	.08¾	Nom.
Oleic (see red oil).			
Red oil, distilled, barrels	lb.	.09¾@	.10¼
tanks	lb.	.09 @	—
saponified, barrels	lb.	.10 @	.10½
tanks	lb.	.09¼@	—
Stearic, double pressed, bags	lb.	.14 @	.14½
triple pressed, bags	lb.	.16½@	.17

Fats and Greases

Grease, house, tierces	lb.	.07¾@	.07¾
white, tierces	lb.	.07¾@	.10½
yellow, tierces	lb.	.07¾@	.07¾
Lard, city, tierces	100 lbs.	12.75 @	—
compound, tierces	100 lbs.	11.75 @	12.00
Middle Western, tierces	100 lbs.	13.10 @	—
neutral, tierces	100 lbs.	14.50	Nom.
prime Western, tierces	100 lbs.	13.00 @	—
Stearin, oleo, barrels	lb.	.12½@	.12¾
Tallow, edible, barrels	lb.	.10 @	.10¼
extra, works, loose	lb.	.08¾@	—
special, works, loose	lb.	.08¾@	—
Wool grease (see degras, Animal Oils).			

Candles

Candles, adamantine, 6s, 16 oz., 20-set cases	set.	.14½@	.15¾
40-set cases	set.	.14 @	.14¾
Candles, paraffin, cs., 14 oz., case of 40 sets	set.	.10 @	.10¼
6s, 14 oz., case of six cartons containing 36 sets	set.	.11 @	.11¾
6s, 12 oz., 40-set, cases	set	.09 @	.09¾
6s, 12 oz., cases of six cartons containing 36 sets	set	.10 @	.10¼
patent ends	set.	.17½@	.18
stearin, 6s, 16 oz., plain, cases,	set.	.16½@	.17

"Engineering Advice on Factories"

Specialists in

FACTORIES

For Sale or Lease

The service and advice of chemical engineers with extensive plant experience is available to executives in aiding them to locate suitable factories.

Technical Service Company

Woolworth Bldg., N. Y. C. Whitehall 8412

Spanish Olive Oil Outlook

WASHINGTON, Sept. 18, 1928.

Damage by insects and fungi is expected to curtail the olive crop in Spain this season, according to information sent to the Department of State by the consul-general at Barcelona. Spanish production of olives and olive oil in recent years has been as follows.—

	Metric tons	
	Olives.	Olive oil.
1923-24	1,613,353	298,859
1924-25	1,744,780	335,189
1925-26	1,868,238	327,577
1926-27	1,290,606	230,112
1927-28	3,516,582	665,639

A membership in the New York Produce Exchange sold last week for $18,300, an advance, within a week, of $700.

The sixth annual golf outing of the Oil Trades Association of New York will be held September 27 at the Westchester Hills Golf Club, White Plains, N. Y.

David Mahany, president of A. Gross & Co., maker of stearic acid and red oil, this city, returned September 19 from a pleasure trip in Europe.

STORAGE TANKS

NEW AND SECOND HAND

Prompt Shipment

Shippers' Car Line Corporation
30 Church Street, N. Y.
Works: Milton, Pa.

FOAM A BARYTES

THE WHITEST BARYTES IN THE WORLD

NATIONAL PIGMENTS & CHEMICAL COMPANY

Factory, St. Louis, Mo. 136 LIBERTY STREET, NEW YORK CITY

BUY WITH SAFETY

You are sure of dependable equipment at a remarkable saving from our large stock when you buy from Consolidated. Confidence is the keynote. Visit our Shops and observe for yourself our practice of thoroly overhauling every item of machinery shipped out.

What idle machinery have you for sale? Send us your list as we are ready to buy for spot cash.

In Stock Ready for Immediate Shipment

AUTOCLAVES
2—250-gallon Jacketed, Agitated.
1—400-gallon, Jacketed, Agitated.

DRYERS
1—Proctor Tunnel Dryer.
4—Proctor and Gordon, tray and truck.
11—Vacuum Shelf, Nos. 27, 23, 12, 11.
6—Rotary Vacuum, 3 x 15' to 5 x 32'.
6—Drum Dryers, single and double, Atmospheric.

EVAPORATORS
8—Single, Double, Triple, Quadruple Effects; Swenson, Scott, Stokes.

CENTRIFUGALS
Copper and Steel Baskets
3—60" Tolhurst. 30" Troy.
4—48" Tolhurst. 24" Troy.
2—40" Tolhurst. 20" American

FILTER PRESSES
17—Shriver, Johnson, Sperry, 12" x 12" to 42" x 42".
12—Sweetland, Nos. 12, 11, 10, 5, 2.
8—Oliver, 3 x 2, 6 x 4, 6 x 6.

W. & P. MIXERS
1—Size 8, Type 3, Unjacketed, 4½ gal.
1—Size 11, Type 3, Jacketed, 9 gal.
3—Size 15, Type 7, Jacketed, 100 gal.
2—Size 16, Type 6, Jacketed, 150 gal.
1—Size 17, Type 7, Jacketed, 200 gal.
1—Unjacketed, 450 gal.
2—Unjacketed, 950 gal.
1—Size 30, Jacketed, 2300 gal.

MIXERS
6—5000 gallons, Vertical, coils.
2—Day Jumbo, 500 to 1900 gals.
15—Dough, Single and Double Blades, jack., unjack., 20 to 500 gals.
14—Sizes A, B, C and D, Day Sifters and Mixers.

KETTLES
All Types and Sizes
300 in stock—open top, closed, jacketed and unjacketed, with and without agitators, vertical and horizontal.

LIQUIDATIONS
Our present liquidation operations include such well known plants as—
THE PICKERING CHEMICAL CO.
Nitro, W. Va.
Tiverton, R. I. Plant of
THE PETROLEUM CHEMICAL CORP.
WAYNEWOOD PRODUCTS COMPANY
Collinwood, Tenn.

Special Items
2—J. P. Devine, 5x33' Rotary Vacuum Dryers, complete.
2—200 hp. H.R.T. AMES Boilers, A.S.M.E. Mass. Std.
2—Vertical Pfaudler glass lined Tanks, 10' diameter by 14½' high, 8700 gallons each.
3—Horizontal Pfaudler glass lined Tanks, 8' diameter by 22' long; 9000 gallons each. Attractively priced.
4—Truscon Steel Buildings.
Send for Your Copy of Our Latest "Play Safe" Circular.

Made of Cast Iron, Steel, Copper, Aluminum, Glass Lined, Lead Lined, Duriron and Monel Metal.
Capacities from 25 gals to 20,000 gals.

DISTILLING UNITS
10—Badger and Lummus Copper Column Units, 54", 48", 36", 30", 24" and 12".

VACUUM PANS
10—Copper, 25 gal. to 600 gal.
2—100 gal. Aluminum Jacketed Pans.
1—6' Copper; 1—7' Cast Iron.

SULPHUR BURNERS
4—Glens Falls Sulphur Burners, 4' x 16', complete.

CRUSHING MACHINERY
Send for our new Bulletin listing Raymond Mills, Schutz-O'Neil Mills, Sturtevant, Fuller Lehigh, Ball and Pebble Mills, Hardinge Mills, Jaw and Gyratory Crushers, Tube Mills, Dryers and Kilns.

PAINT MACHINERY
Send for latest list of Roller Mills, Pebble Mills, Burrstone Mills, Paste Mixers, Pony Mixers, Clarifiers, etc. Wanted: Your surplus paint machinery. Send us your list.

CONSOLIDATED PRODUCTS COMPANY, INC.

Main Office
15-17-19 Park Row, New York, N.Y.
Phone: Barclay 0602-03-04-05

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335 Doremus Ave., Newark, N.J.
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Business Opportunities-Classified

Minimum rate (36 words), without display, $2.00 per insertion; 25¢ for each additional 6 words

Agencies Wanted

SALES AGENCY wanted — Well financed organization covering paint, varnish, lacquer, leather, chemical and drug manufacturers in metropolitan district. Is in position to take on additional lines, operate own warehouse, railroad siding equipped to package merchandise direct from tank cars or from own storage tanks. Address BOX 939, care of this paper.

OLD ESTABLISHED chemical manufacturing concern in Middle West wants to add on new products in order to balance up seasonal demand of their present product. Prefer to manufacture only but can also effect distribution. Would be interested in acting as Mid-West manufacturing plant for concern in another section of country. Address BOX 943, care of this paper.

WELL-KNOWN, old established English firm of chemical merchants, with ramifications throughout Europe, are desirous of obtaining the selling agency of a first-class American firm of chemical manufacturers. Address in the first place to BOX 900, care of this paper.

COPPER SULPHATE—Important European makers seek American and Canadian connections. Address P. I., BOX 958, care of this paper.

Agents Wanted

AGENTS WANTED to sell shellac varnish for established manufacturer. Address BOX 944, care of this paper.

BROOKLYN MANUFACTURER of full line of paints and varnishes specializing in technical paint and waterproofing, desires industrial representation through experienced manufacturer's agent. Manufacturer is of highest standing and will gladly exchange references with responsible representative. Write giving details of experience, terms and territory covered. Address BOX W 2102, 110 West 40th street, New York, N. Y.

Equipment Offered

FOR SALE.—Bottle fillers, crown cork capping machines, labelling machines, filters, centrifugal and rotary pumps. Also DeLaval and Sharples clarifiers, copper and aluminum stills, copper, aluminum and iron kettles, gas and coal steam boilers, copper columns, dephlegmators and condensers. Machinery and Equipment Co., 225 Sherman avenue, Newark, N. J.

ABBE PEBBLE MILLS: Two 4-ft. by 5-ft.; two 80-gallon liquid interchangeable mixers; three pair of 50-gallon paste mixers; five 16 by 40 roller paint mills. Irving Barcan Co., 30 Church street, New York, N. Y. Telephone Cortlandt 2195.

MIXERS—One 100-gal. jacketed W. & P. mixer; one 250-gal. unjacketed W. & P. mixer; one 600-lb. De Laval clarifier; one Shriver lead 18 x 18 filter press; one Duriron steam jacketed kettle, 300 gals.; two 400-gal. copper, steam jacketed agitated kettles; two Rogers motor driven powder filling machines; one Colton combination tube filler, closer and clipper. Address BOX 910, care of this paper.

FOR SALE—Tube filters and closers; Stuart & Peterson enameled mixing kettles and storage tanks; powder fillers; bottle fillers and labellers; copper and iron basket centrifugals; single and double arm mixers; sifters and mixers; dryers, grinders, mills, etc. Chemical Machinery Co., 405 East 15th street, New York City. Stuyvesant 8139.

FOR SALE—Abbe porcelain pebble mill; 12-inch jar, with pulley. Stokes "O" tablet machine, high speed, heavy duty up to ⅝ inch. Both machines in good working order. Reinschild, 106 Seventh avenue, New York.

FOR SALE very cheap: One Swenson Jr. evaporator, copper tubes complete with condenser and Marsh steam driven wet vacuum pump, has never been in service. 1 Devine 2-phase belt driven rotary valve dry vacuum pump, 10x10-in., suction discharge 3-in., capacity 6,800 cubic feet. 1 fractionating column, 34 sections, 48-in. diameter, each section 6 ins. high, 50 boiling caps on each plate between sections. Acme Oil Corp., 189 No. Clark street, Chicago.

FOR SALE—Three Sharples No. 6 super centrifuges, guaranteed in good running condition. Address BOX 966, care of this paper.

Equipment Offered

FOR SALE—One 20, one 30, one 12-stone paint mills, nine 18 water cooled iron mills, one package sealing and wrapping machine, in fine condition. William Brady, 9615 134th avenue, Ozone Park, New York. Tel. Virginia 7275.

Equipment Wanted

FOR CHEMICAL plant, filter presses, dryers, pulverizers, stills and miscellaneous equipment. Give particulars and price in letter. Address BOX 912, care of this paper.

COPPER STILLS and kettles, 25 to 400 gals.; cast-iron filter presses; storage tanks, 2,000 to 20,000 gals.; autoclaves, 1 to 10 gals. Address BOX 913, care of this paper.

WANTED—All kinds of chemical equipment. What have you for sale? Address BOX 956, care of this paper.

Factories Offered

CHEMICAL PLANT, operating, for sale or lease with or without equipment. 18 miles to New York city on new express highway. 15,000 feet, all facilities, concrete one-story building, motors, shafting, any acreage. Railroad siding. Address BOX 972, care of this paper.

Manufacturing Wanted

MANUFACTURER of chemical preparations and compounds with a factory and vacant property located in a suburb of Chicago on two belt railroads with trap car service to all Chicago roads who have an established trade and national sales organization selling steam power plants desires to add an additional line for which there is general demand in this field. Will consider the manufacture and sale of anything of merit or will market without manufacturing. Address BOX 971, care of this paper.

Materials Offered

LINOLEATE - MANGANESE — True linoleate made from pure linseed oil only, completely dehydrated. "Every pound the same." Made and sold by the Pantasote Leather Co., Passaic, N. J.

MAKE OFFER for 3,600 pounds bauxite—any reasonable bid accepted. The Bird-Archer Co., 2d and Bristol streets, Philadelphia.

FOR SALE—Two hundred bbls. fish stearine, 4½c. per lb., freight paid New York. Also three carloads fish oil soapstock, 50 percent fat, at a very reasonable price. Address BOX 967, care of this paper.

FOR SALE—Very highest quality red oxide of iron, 90 percent pure, excellent tinctorial strength. Acme Oil Corp., 189 N. Clark street, Chicago, Ill.

FOR SALE—Bentonite, a suspensory agent used in cold water paints and similar products, excellent colloidal mixture for soaps and cleansers, also suitable for use in paste, insecticides, polishes, asphalt emulsions, etc. Acme Oil Corp., 189 N. Clark street, Chicago.

OCHRE, bright yellow—We are now offering a bright yellow ochre from the largest ochre deposit in the East—100-pound sacks, carload lots or less. Prompt delivery—guaranteed quality. Let us have your inquiry. Ochre Products Company, 7 North Main street, Wilkes-Barre, Pa.

Materials Wanted

NEW YORK EXPORTERS offer exceptional facilities for the introduction, sale, utilization and distribution of American chemical products, drugs, raw materials, minerals and by-products to all industries on the European continent. Correspondence invited from responsible producers only. Address BOX 961, care of this paper.

Positions Vacant

REPUTABLE MANUFACTURER of pigment finishes and top dressings desires experienced salesman to cover the leather trade in Middle West and Canada. Must be practical leather man capable of demonstrating finishes. Good proposition to right man. Give age, experience and full particulars in first letter. Address BOX 959, care of this paper.

Positions Vacant

COLOR MIXER and chemist for lacquer factory. Give qualifications in first letter. Address BOX 949, care of this paper.

PAINT CHEMIST wanted by manufacturer of industrial paints, located in northern New Jersey. Must be able to do analytical work, be thoroughly grounded in paint technology and have experience in industrial paints. Salary commensurate with ability. State full particulars, which will be held in strict confidence. Address BOX 947, care of this paper.

VERY LARGE raw material manufacturer whose products are sold to the paint, printing ink and rubber industries has an unusual opening for an unusual man as sales engineer. Applicant should be a graduate chemist and preferably one who has had both manufacturing and sales experience. Must be willing to travel. Give complete business history in first letter to secure interview. Data furnished in application will be considered confidential and no steps taken which will embarrass applicant's position with present employer. Address BOX 960, care of this paper.

CHEMIST WANTED—Man who is experienced and who has thorough knowledge of lacquer manufacturing, lacquer solvents, copal, pontianik and varnish gums. Give full particulars. Address BOX 962, care of this paper.

PRODUCTION MANAGER—Large and successful manufacturer of hydrocarbon products has an unusual opening for an able plant manager. Location, near New York. We prefer a man who has had some experience in asphalts, but lack of it will not bar if other qualifications are high. This is a real opportunity. Please give full particulars in first letter. Address BOX 963, care of this paper.

Positions Wanted

PHARMACEUTICAL CHEMIST—Technical training, executive ability, twenty years' practical experience, desires position with firm manufacturing patent medicines or toilet preparations. Experience includes research, drug analysis. Have many industrial formulæ. Address BOX 957, care of this paper.

EXPERIENCED all-around paint man capable of taking charge, looking for a position of responsibility, vicinity of New York preferred. Address BOX 970, care of this paper.

SUPERINTENDENT of paint and varnish factory wants position with progressive concern; good production man. Thorough knowledge of paint and varnish formulation, specialty lines and plant operation. Experienced in structural paints, graphite paints and industrial paints and lacquers. Address BOX 969, care of this paper.

SUPERINTENDENT desires position; an experienced formulator, executive and organizer, capable of operating varnish or paint plant manufacturing industrial or architectural lines. References. Address BOX 973, care of this paper.

PRACTICAL CHEMIST—Age 30, business, plant and laboratory experience, available after hours, daily, Saturday afternoons and Sunday. Fully qualified to organize or take full charge. Address BOX 968, care of this paper.

MANAGER or superintendent, chemical engineer, age 35, a capable executive with a successful record of more than 10 years in plant operation and development of a wide variety of products; a good organizer and thoroughly versed in all branches of business; will consider any sound proposition. Address BOX 964, care of this paper.

Processes Offered

WE OFFER manufacturing rights under Welter spray tower patents applicable for large volume economical production of free-running, non-caking powders. Markedly lower costs, cheaper than ordinary mixtures. Particularly adapted to combinations of dry with liquid commodities, recreating new definite single crystallin product. No dust, clean working conditions. Simple and accurate control; very low maintenance. Will consider exclusive license to responsible firms in their respective field. Gold-Par Produce Exchange Building, New York.

Services Offered

WHEN YOU need help on lacquers, when you want to duplicate or to improve a formula, when you need a new lacquer for a specific purpose, address BOX 911, care of this paper.

CONSULTING CHEMIST and Chemical Engineer, with years of experience, maintaining well-equipped laboratory for research, control, development and analytical work, offers expert services to manufacturers and brokers. Specialist in paints, varnishes, lacquers, oils, fats, soaps, disinfectants, insecticides, etc. Factories designed, supervised and operated. Address BOX 965, care of this paper.

CHEMICALS RECLAIMED—Have you any impure, off-color or damaged chemicals or drugs? We can put them into first-class condition for you. Moderate charges. New Jersey Chemical and Industrial Laboratories, Reclamation Dept., 421-431 Johnston avenue, Jersey City, N. J. Tel. Delaware 8400.

RARE ELEMENTS, alkaloids, rubber, adhesives—we are expert consultants on these products. New Jersey Chemical and Industrial Laboratories, 421-431 Johnston avenue, Jersey City, N. J. Tel. Delaware 8400.

TRIBAL OSAGE OIL LEASES AT PUBLIC AUCTION.
SEPTEMBER 27, 1928,
BY UNITED STATES GOVERNMENT.

September 27, 1928, at Pawhuska, Oklahoma, about 20,000 acres will be offered for oil leases in quarter section tracts. Bids will be for bonus in addition to royalties, 25 percent payable on day of sale, balance in three annual instalments, with acceptable security. Within advertised area there are about 9,875 wells producing from one barrel to 400 barrels each, the total daily production for June, 1927, being about 53,000 barrels; also, there are about 40 wells drilling. All lands are now leased separately for gas. Blue print maps of area advertised, showing tracts producing oil or gas, can be had for fifty cents each, also logs of producing oil or gas wells for twenty-five cents each well. Write U. S. Superintendent, Osage Agency, Pawhuska, Oklahoma, for maps, logs or other information.

YOUR RELIABLE FIRM OFFERS FOR SALE

KETTLES & MIXERS

2— 20 gal. "Wear-Ever" Aluminum Kettles.
3— 30 gal. Jacketed Copper Kettles.
7— 60 gal. Jacketed Copper Kettles.
3— 250 gal. Jacketed Copper Kettles.
150—"Wear-Ever" Aluminum Jacketed Kettles, 40 and 80 gals. capacity.
2— 20 gal. Experimental Mixers.
2— 60 gal. Day Mixers.
2— 100 gal. Jacketed Mixer Kettles.
2— 150 gal. Jacketed Vallelron Mixers.
1— 500 gal. C. I. Sulphonator.
2— 900 gal. Horizontal Steel Mixers.
5—1500 gal. C. I. Reduction Kettles.
3—1600 gal. Jacketed Nitrators.

DISTILLING APPARATUS

1— 50 gal. Jacketed Copper Still.
2— 75 gal. Jacketed Copper Stills.
1—150 gal. Jacketed Copper Still.
1—300 gal. Copper Still.
2—400 gal. Copper Stills.
4—115 gal. Aluminum Jacketed Stills.
1—150 gal. Enamelled Still.
6—Copper Columns, 15 in., 18 in., 24 in., Diam.
5—Dephlegmators, 15 in., 18 in., 24 in. Diam.
9—Condensers, Assorted.

FILTERS

1—36 in. Shriver C. I. Filter Press.
1—30 in. Sperry C. I. Filter Press.
1—30 in. Shriver-Atkin C. I. Press.
4—30 in. sq. Wooden Filter Presses.
5—24 in. sq. Wooden Filter Presses.
2—24 in. sq. Cast Iron Filter Presses.
3—18 in. sq. Wooden Filter Presses.
20—30 in. Filter Press Skeletons.
2—Kiefer Multiple Filters.

EVAPORATORS

1—Devine Vacuum Evaporator.
4—Jacketed Evaporating Pans, 7 ft. x 30 in.
2—Evaporating Pans, 8 x 3 ft.
2—Zaremba Evaporators, 5 ft. diam.

VACUUM PUMPS

20—Beach Russ Rotary Vacuums.
8—Devine, 4 x 6 in. and 6 x 8; Belted.
1—Stokes, 2-stage, 6 x 3 in.
1—Devine, 5 x 10 x 8.
1—Blaisdell, 14 x 10 in.; Belted.
1—Alberger, 8 x 16 x 10.

MISCELLANEOUS

5—Abbe Mills, 24 x 30 in.; 4 ft. x 5 ft.
1—Allis-Chalmers Rotary Hammermill.
1—Jeffrey Spike Roll Coal Crusher.
1—Gruendler Crusher.
4—Lehman-Bean Roasters.
1—150 gal. Jacketed Autoclave.
3—Grinnell Dryers, NEW.
8—Centrifugal Extractors, 12 in. to 40 in.
2—Laundry Ironers; Gas-Electric.

Send us your inquiries

Machinery & Equipment Co., Inc.
225 Sherman Ave., Newark, N. J.
Phones: 7707-8 Waverly

Drugs and Fine Chemicals

Current Prices

(Continued from page 70)

Ether, nitrous, carboys, bottles, lb.	.70	@	.92
Ethyl chloride, drums	.22	@	.24
Ethyl-methyl ketone, drums	.30	@	—
Ethyleneglycol, refined, drums	.25	@	.30
technical, cans	3.60	@	3.75
Eucalyptol, cans	1.00	@	1.05
Eugenol (see Essential Oils).			
Formaldehyde, car lots, barrels, f.o.b. works	.08½	@	—
less car lots, barrels, f.o.b. spot	.08¾	@	.09
Furfural, drums	.19½	@	—
tanks	.16¾	@	—
works, drums	.17½	@	—
tanks	.15	@	—
Fusel oil (see Lacquer Materials).			
Gelatin, silver, cases	.58	@	.59
Glycerin, C.P., drums extra	.15	@	.15½
cans	.16½	@	.17
dynamite, drums incl.	.12½	@	.12¾
saponification, loose, drums	.08¾	@	.08½
soaplye, loose, drums	.07½	@	.07¾
30 degrees, yellow, drums	.14½	@	.15
Glycerophosphates—			
calcium, barrels, cans	1.40	@	1.55
manganese, barrels, cans	2.90	@	3.10
potash solution, 75 p.c., barrels, cans	1.35	@	1.50
soda, crystals, barrels, cans	1.40	@	1.55
solution, U.S.P., bottles, cans, demijohns	1.05	@	1.20
Guaiacol carbonate, boxes, kegs lb.	1.70	@	2.50
liquid, bottles, demijohns	1.75	@	2.00
Haarlem oil, domestic, cases, per gross	3.25	@	3.30
imported, cases, per gross	3.50	@	3.53
Hexamethylenetetramine, domestic, drums	.52	@	.54
Homatropine hydrobromide, bottles, vials			@14.50
Hydrastine, alkaloid, vials			@21.00
resale, vials			@20.00
hydrochloride, vials			@21.00
sulphate, vials			@ —
Hydrogen peroxide, barrels	.04	@	—
bottles, gross	7.75	@	18.50
Hydroquinone, kegs	1.25	@	1.30
Hyoscine hydrobromide, vials			@13.50
Hyoscyamine alkaloid, vials			@ —
hydrobromide, vials			@ —
sulphate, vials			@ —
Hypophosphites—			
ammonium, barrels	1.10	@	1.20
calcium, cans	.60	@	.65
iron, cans	1.00	@	1.05
magnesium, cans	1.15	@	1.20
potash, cans	.80	@	.85
soda, cans	.70	@	.75
Ichthyol, bottles	4.00	@	4.25
Iodides—			
ammonium, jars	5.20	@	—
arsenous, bottles, jars	6.35	@	6.85
arsenous-mercuric solution, bottles	.25	@	—
barium, bottles	5.25	@	—
cadmium, bottles, jars	4.55	@	—
calcium, bottles, jars	4.35	@	—
copper, bottles	6.22	@	6.27
ethyl, bottles	6.35	@	—
iron, bottles	4.30	@	4.40
syrup, demijohns	.35	@	.65
lead, jars	5.20	@	—
lithium, bottles, jars	5.40	@	—
manganese, bottles, jars	6.40	@	—
mercury, green or yellow, jars, kegs	4.80	@	4.90
red, jars, kegs	4.89	@	5.05
potassium, barrels, fiber drums lb.	3.75	@	3.80
sodium, jars	4.25	@	4.30
starch, bottles	1.77	@	—
strontium, jars	4.00	@	4.10
sulphur, bottles, jars	4.55	@	—
thymol, barrels	6.50	@	6.75
zinc, bottles, jars	5.20	@	5.70
Iodine, resublimed, kegs	4.65	@	4.70
Iodoform, keg-	6.00	@	6.05
Iron chloride, U.S.P., lump, barrels	.06	@	.08
solution, U.S.P., carboys	.05½	@	.07
phosphate, ferric, cans	.55	@	.69
ferrous, cans	.29	@	.34
pyrophosphate, cans	.74	@	—
reduced, 90 percent, cases	.65	@	.75
sulphate, U.S.P., crystals, barrels	.04¼	@	.05
Isinglass, Russian, cases	4.50	@	6.50
Lanolin (see adeps lanae).			
Licorice extract, mass, cases	.18	@	.20
powdered, barrels	.33	@	.34
Lithium carbonate, barrels	1.50	@	1.60
citrate, barrels	1.70	@	1.80
Magnesia, calcined, U.S.P., barrels	.45	@	.60
carbonate, technical, bags	.06	@	.07
barrels	.07	@	.08
U.S.P., barrels	.08	@	.09
Manganese dioxide, precipitated, U.S.P., kegs	.40	@	.50
Menthol, imported, cases	5.00	@	5.25
synthetic, tins	3.00	@	3.25
Mercurials, hard—			
bisulphate, kegs	1.63	@	—
calomel, boxes, kegs	2.05	@	—
corrosive sublimate, fiber drums, kegs	1.65	@	1.80
oxide, black, fiber drums, kegs	3.95	@	4.20
yellow, U.S.P., fiber drums, kegs	2.57	@	2.72
red precipitate, fiber drums, kegs	2.16	@	—
white precipitate, fiber drums, barrels	2.24	@	—
soft—			
blue mass, U.S.P., cans, kegs, lb.	1.02	@	1.05
citrine ointment, jars, tubs, lb.	.67	@	—
mercury and chalk, fiber drums, kegs	.92	@	—
ointment, 30 p.c., cans	.91	@	—
33⅓ p.c., cans	.94	@	—
50 p.c., cans	1.28	@	—
Methanol, denaturing grade, tanks	.50	@	—
96 p.c., barrels	.54	@	.56
drums	.48	@	.50
tanks	.45	@	—
97 p.c., barrels	.56	@	.59
drums	.50	@	.53
tanks	.47	@	—
purified, barrels	.57	@	.59
drums	.51	@	.53
tanks	.50	@	—
synthetic, car lots, drums	.48½	Nom.	
less car lots, drums	.51½	Nom.	
tanks, works, frt. alld.	.46½	Nom.	
Methyl acetone, drums	.83	@	.87
tanks	.80	@	—
salicylate, drums	.40	@	.43
tins	.42	@	.45
resale, tins	.40	@	.41
Methylene blue, medicinal, kegs, lb.	2.00	@	2.25
Milk powder, skimmed, barrels, lb.	.10	@	.12
unskimmed, barrels	.26	@	.28
Morphine acetate, bottles, vials, oz.	7.75	@	7.80
alkaloid, cans	9.65	@	9.70
ethyl hydrochloride, vials	9.25	@	9.30
hydrobromide, cans	7.75	@	7.80
hydrochloride, cans	7.75	@	7.80
sulphate, cans	7.75	@	7.80
Musk, Cabardine, grained, bottles	No stocks.		
pods, bottles	No stocks.		
Tonquin, grained, bottles	30.00	@	32.00
pods, bottles	20.00	@	21.00
Opium, U.S.P., cases	12.00	@	13.00
granulated, U.S.P., cans	13.00	@	14.00
powdered, U.S.P., cans	13.00	@	14.00
Oxalates—			
ammonium, crystals, barrels, kegs	.28	@	.30
cerium, barrels	.32	@	.33
iron, scales, cans	.90	@	.91
powdered, kegs	.52	@	.53
iron-ammonium, barrels, kegs, lb.	.34	@	.36
potassium, kegs	.49	@	.50
sodium, barrels, kegs	.30	@	.32
potassium, crystals, barrels	.23	@	.25
sodium, neutral, powder, barrels	.39	@	.43
Paraldehyde, technical, drums	.20½	@	.23
U.S.P., carboys	.53	@	.55
Paraformaldehyde, kegs	.40	@	.42½
Phenolphthalein, U.S.P., barrels, drums	1.10	@	1.20
Phenylhydrazin hydrochloride, bottles	9.00	@	—
Pilocarpine hydrochloride, bottles, vials	6.25	@	8.50
resale, vials	2.50	@	2.75
nitrate, bottles, vials	3.25	@	3.50
Podophyllin, U.S.P., tins	4.25	@	4.80
Potash acetate, barrels	.20	@	.30
bicarbonate, U.S.P., crystals, barrels	.13	@	.14
granular, barrels	.13	@	.17
carbonate, U.S.P., granular, barrels	.12	@	—
powder, fine, barrels	.14	@	—
chlorate, U.S.P., granular, kegs	.16	@	.17
powder, kegs	.11	@	.14
guaiacol sulphonate, cans	1.95	@	2.25
permanganate, U.S.P., drums, lb.	.15	@	.15½
sulphate, N.F., barrels	.13	@	.16
Quicksilver, 76-lb. flasks, net per flask	130.00	@	132.00
Quinidine alkaloid, cans	.70	@	.75
sulphate, cans	.50	@	—
Quinine acetate, cans	.78	@	—
alkaloid, cans	.55	@	—
arsenate, cans	.78	@	—
arsenite, cans	.78	@	—
benzoate, cans	.78	@	—
bisulphate, cans	.40	@	—
Japanese, tins	.40	@	—
resale	.38	@	.39
Swiss	.40	@	—
citrate, cans	.51	@	—
dihydrobromide, bottles	.54	@	—
dihydrochloride, bottles	.54	@	—
ethylcarbonate, cans	.58	@	—
ferrocyanide, cans	.78	@	—
formate, cans	.73	@	—
glycerophosphate, cans	.80	@	—
hydrobromide, cans	.50	@	—
hydrochloride, cans	.50	@	—
hydrochloride and urea, cans	.78	@	—
hydrochlorosulphate, cans	.54	@	—
hydriodide, cans	.78	@	—
hypophosphite, cans	.70	@	—
lactate, cans	.66	@	—
phosphate, cans	.62	@	—
salicylate, cans	.52	@	—
sulphate, domestic, tins	.40	@	—
Dutch, tins	.40	@	—
Japanese, tins	.40	@	—
Swiss, tins	.40	@	—
sulphocarbolate, cans	.78	@	—
tannate, cans	.41	@	—
tartrate, cans	.78	@	—
valerate, cans	.78	@	—
Quinine-urea hydrochloride, cans, oz.	.54	@	—
Resorcinol, U.S.P., f.o.b. works, cans, kegs	1.75	@	—
Rochelle salt, crystals, boxes, kegs	.23	@	—
powder, barrels, kegs	.23	@	—
Rosewater, triple, per demijohn	5.50	@	5.75
Saccharin, 1,000-lb. lots, cans	1.70	@	—
smaller lots, cans	1.75	@	1.90
Salicin, cans	4.65	@	5.75
Salol, kegs	.90	@	.95
Santonin, crystals, cans	130.00	@	140.00
Saponin, tins	1.15	@	1.50
Seidlitz mixture, barrels, kegs, lb.	.18½	@	—
Silver bullion	.57⅝	@	—
nitrate, vials	.40⅜	@	—
nucleinate, vials	.35	@	.36
proteinate, vials	.30	@	.37
Soda benzoate, U.S.P., bbls	.50	@	.53
biphosphate, U.S.P., barrels	.30	@	.34
cacodylate, jars	4.75	@	5.90
caustic, U.S.P., sticks, cans	.19	@	.23
cyanide (see Industrial Chemicals, page 10).			
perborate, N.F., barrels	.20	@	.23
phosphate, dibasic, U.S.P., granular, barrels	.07½	@	.08
salicylate, boxes	.47	@	.49
resale, boxes	.45	@	.46
sulphocarbolate, barrels	.30	@	.32
Sparteine sulphate, bottles, cans, oz.	.70	@	.80
Strontium carbonate, pure, barrels	.25	@	.30
Strychnine acetate, cans	.65	@	—
alkaloid, crystals, cans	.66	@	—
powder, cans	.56	@	—
arsenate, cans	.65	@	—
glycerophosphate, cans	.65	@	—
hydrobromide, cans	.65	@	—
hydrochloride, cans	.65	@	—
hypophosphite, cans	.75	@	—
nitrate, cans	.60	@	—
phosphate, cans	.55	@	—
sulphate, crystals, cans	.56	@	—
powder, cans	.46	@	—
Sugar coloring, barrels	.72	@	.73
Sugar of milk, barrels	.21	@	.21½
Sulphonmethane, kegs	2.65	@	2.75
Sulphonethylmethane, kegs	2.85	@	3.95
Sulphur, commercial (see Industrial Chemicals).			
flowers, bags	100 lbs. 3.10	@	3.65
barrels	100 lbs. 3.45	@	4.00
precipitated, kegs	.15	@	.17
Tartar emitic, technical, crystals, barrels	.27½	@	.27½
powder, barrels	.27¼	@	.27½
U.S.P., powder, barrels	.32½	@	.34
Tartaric acid (see Industrial Chemicals, page 10).			
Terebene, cans	.75	@	.85
Theobromine, alkaloid, cans	1.70	@	2.25
sodiosalicylate, cans	1.70	@	2.25
Terpin hydrate, kegs	.45	@	.48
Thymol, bottles	2.50	@	2.65
Vanilin, tins	6.25	@	6.80
Venice turpentine, true, cases	.29	@	.30
Witch hazel extract, distilled, N.F., barrels	.70	@	.90
Yohimbine hydrochloride, vials, oz	2.75	@	3.50
Zinc carbonate, precip., U.S.P., powder, barrels	.28	@	.30
oxide, U.S.P., barrels	.14½	@	.18
stearate, U.S.P., barrels	.24	@	.26
sulphocarbolate, N.F., barrels, lb	.28	@	.30

Bobby Jones Will Play For N. W. D. A. Visitors

For the entertainment and edification of visitors to the convention of the National Wholesale Druggists' Association, next week, Atlanta has arranged to have her favorite son, Robert T. Jones, Jr., give an exhibition of his famous variety of golf. But this is not all that is in store for those who spend the convention week in the Georgia metropolis. The N. W. D. A. visitors have the promise of Harrison Jones, of the Coca-Cola Company, who has charge of arrangements, that "Atlanta will do her very best for the National Wholesale Druggists' Association—and we think her best is sometimes very good."

Mr. Jones (he of Coca-Cola fame) asks this paper to say also for him, as chairman of the committee on arrangements:—"We hope that everybody will come."

London Drug and Oil Data

LONDON, Sept. 10, 1928.

The following tabulation shows the stocks of drugs, oils, and the like in London public warehouses at August 31, 1928 and 1927, also the goods taken into and out of those premises in August this year:—

	Aug., 1928 Landed.	Aug., 1928 Delivery.	Stocks 1928.	Stocks 1927.
Shellac, orange, cs.	6,228	4,030	13,329	24,111
garnet, cases	219	339	544	756
button, cases	553	599	1,369	719
Total	7,000	4,968	15,242	25,586
Aloe, cases, gourds, etc.	1	18	105	267
Anise, star, cases	..	..	..	..
Arrowroot, barrels, boxes and tins	353	402	8,339	8,407
Balsam, cases, etc.	10	3	63	164
Cascara sagrada, tons	13	7	300	290
Cinchona bark, South American, cases	..	..	16	..
bales, etc.	54	..	423	441
East India, Ceylon and Java, cases	..	..	12	..
bales, etc.	93	21	1,065	989
Total	147	21	51,516	1,430
Quinine sulphate, pounds	..	..	1,782	2,107
Tanners' bark, tons	1	..	80	90
Beeswax, pkgs.	761	379	1,648	1,693
Japan vegetable wax, cases, etc.	157	91	457	661
Camphor, pkgs.	561	129	1,299	1,189
Cardamom, cs., etc.	69	216	1,411	2,662
Cochineal, bags	3	10	73	63
Coculus indicus, bgs	..	..	6	6
Colombo root, bgs.	..	88	*1,122	1,533
Cubebs, bags	..	1	94	96
Dragons blood, cs.	8	10	153	191
Nutgalls, China and Japan, cases	..	186	295	2,018
Turkey and Persian, bags	..	37	*1,430	1,207
Gum, ammoniac, pkgs.	..	..	206	244
animi, pkgs.	151	159	451	513
copal, pkgs.	3,573	4,690	16,857	20,223
arabic (all descriptions), pkgs.	1,110	1,417	8,091	9,058
asafetida, pkgs.	..	11	214	97
benzoin, pkgs.	44	116	670	592
dammar, pkgs.	462	673	4,213	3,437
gamboge, pkgs.	3	6	4	10
gualac, pkgs.	..	7	20	48
elemi, pkgs.	10	..	82	168
kauri, tons, net	38	88	864	771
mastic, pkgs.	..	..	8	25
myrrh, East India, pkgs.	17	27	93	98
olibanum, pkgs.	..	23	287	453
sandarac, pkgs.	..	50	156	277
tragacanth, pkgs.	874	879	6,972	10,924
Ipecac, Mattogrosso, pkgs.	68	40	419	101
Minas, pkgs.	..	..	15	38
Cartagena, pkgs.	..	..	10	54
E. I., pkgs.	..	1	..	6
Jalap, bales	79	36	245	243
Myrobalans, tons	78	77	69	73
Nux vomica, pkgs.	..	12	850	603
Oils, castor, casks	56	123	128	375
cases	37	46	172	152
palm, tons	100	78	23	69
cocoanut, tons	33	10	167	144
olive, casks, etc.	422	552	943	1,110
*anise, cases	..	5	156	220
*cassia, cases	10	19	155	61
Graphite, tons	36	21	64	67
Rhubarb, chests	51	60	252	92
Chinese rhapontica, bags	25	8	38	90
Saltpeter, tons	125	152	220	226
Soda nitrate, tons	..	214	1,137	574
Sarsaparilla, bales	57	50	114	109
Senna, bales, etc.	324	278	1,440	1,288
Sticklac, cases	636	609	755	126
Gambier, tons	4	2	21	20
Cutch, tons	..	..	5	..
Turmeric, Bengal, tons	..	20	*73	56
Madras, Cochin, etc., tons	7	52	*131	168
Total tons	7	72	*204	224

* Stocks at certain wharves not included.

Ellis-Jones Drug Co. Adds Mutual Division

The Ellis-Jones Drug Company, wholesaler, Memphis, has, in the words of E. M. Ellis, president, "established a co-operative or mutual department in our business to meet local and territory conditions and competition and for the purpose of assisting retail druggists to meet chain-store competition." The new division in the Ellis-Jones establishment is separately organized as Memphis Mutual, Inc. It has been launched with the assistance of officials of the Mutual Drug Company, Cleveland and elsewhere.

It is the present intention of the Ellis-Jones company to continue operations as a "service" wholesaler. It will conduct the mutual side of its affairs as an added feature for retailers who wish to make use of it.

Botanical Drugs

Current Prices

(Continued from page 72)

Scammony, bags	.95	@	.99
Senega, bales	1.20	@	1.25
Serpentaria, bales	.72	@	.78
Skunk cabbage, bales	.15	@	.16
Snake, Canada, bales	.27	@	.28
Spikenard, bales	.22	@	.23
Squill, bales	.10	@	.12
powdered, barrels, boxes, bottles	.18	@	.19
Stillingia, bales	.10½	@	.11
Stone, bales	.08	@	.09
Tonga, bales	.42	@	.45
Turmeric, Aleppy, bags	.09½	@	.09¾
Bombay, bags	.08¾	@	.09
Madras, bags	.08½	@	.09
Unicorn, false (helonias), bales, lb.	.70	@	.72
true (aletris), bags	.38	@	.39
Valerian, U.S.P., bales	.17	@	.18
Wild indigo, bags	.13	@	.14
Yellow dock, bales	.10	@	.10½
Yellow (xanthoriza), bales	.13	@	.14

Seeds

Anise, Spanish, bags	.16	@	.17
star, bags	.22½	@	.23
Canary, Argentine, bags	.04½	@	.04¾
Morocco, bags	.05	@	.05½
Spanish, bags	.06	Nom.	
Caraway, Dutch, bags	.09¾	@	.09½
Cardamom, bleached, cases	1.20	@	1.75
decorticated, cases	1.40	@	1.45
green, bags	1.20	@	1.30
Celery, bags	.19½	@	.20
Colchicum, bags	.35	@	.37
Coriander, Morocco, bags	.05½	@	.06
bleached, bags	.11	@	.12
Russian, bags	.08	@	.08½
Cumin, Malta, bags	.12¾	@	.13¼
Morocco, bags	.12¾	@	.13¼
Dill, bags	.07¼	@	.07¾
cleaned, bags	.07¾	@	.08¼
Fennel, French, bags	.22	Nom.	
German, bags	.23	@	.26
Fenugreek, bags	.04½	@	.05
Flea, black, bags	.23	@	.24
brown, bags	.12	@	.12½
Hemp, Manchuria, bags	.04	@	.05
Larkspur, bags	.40	@	.45
Lobelia, bags	.45	@	.50
Millet, bags	.04½	@	.05
hulled, bags	.06¾	@	.07¼
Mustard, Bari, brown, bags	.10	Nom.	
California, brown, bags	.10¼	@	.10¾
Chinese, yellow, bags	.07¾	@	.07¾
Dutch, yellow, bags	.07¼	@	.07¾
English, yellow, bags	.08¾	@	.09
Roumanian, yellow, bags	.06½	@	.07
Sicilian, brown, bags	.10¾	@	.10¾
Poppy, Dutch, bags	.09¾	@	.09¾
Indian, blue, bags	No stocks		
Pumpkin, bags	.14	@	.19
Quince, bags	.55	@	.95
Rape, Dutch, bags	.06¾	@	.07¼
German, bags	.06¾	@	.07¼
South American, bags	No stocks		
Sabadilla, powdered, barrels	.33	@	.34
Stavesacre, bags	.17	@	.18
Stramonium, bags	.07¼	@	.08
Strophanthus, Kombe, bags	2.25	@	2.35
Sunflower, domestic, bags	.06	@	.06¾
South American, bags	.06¾	@	.07¼
Worm, American, bags	.14	@	.15
Levant, bags	4.25	@	4.30

Spices

Cassia, Batavia, No. 1, bales	.13¾	@	.14
No. 3, bales	.10	@	.10¾
shortstick, bales	.11	@	.11¾
buds, cases	.20	@	.22
China, selected, cases	.09½	@	.10
broken, bags	.07½	@	.08
extra, bags	.08	@	.08¾
Saigon, cases	.24½	@	.25
Cinnamon, Ceylon 1, bales	.60	@	.61
No. 2, bales	.56	@	.57
Clove, Zanz bar, bales	.26¾	@	.27
Ginger, African, No. 1, bags	.14½	@	.14¾
Cochin, abc, bags	.16½	@	.17
lemon, bags	.17	@	.17½
Jamaica, fancy, bold, bags	.32	@	.33
medium, bold, bags	.24	@	.24½
grinding, dark, bags	.21	@	.22
medium, bright, bags	.22	@	.22½
Japanese, bags	.17	@	.17½
Mace, Banda, cases	.97	@	.98
Batavia, No. 2, cases	.90	@	.91
Penang, No. 2, cases	.90	@	.92
Nutmegs, 80s, bags, cases	.45	@	.48
110s, bags, cases	.34	@	.35
grinding, bags, cases	.26	@	.27
Paprika, extra fancy, bags	.28	@	.28½
fair, bags	.22	@	.22½
fancy, bags	.27	@	.27½
medium, bags	.25	@	.25½
Pepper, black, Alleppey, bags	.37	@	.37½
Lampong, bags	.36	@	.36½
Singapore, bags	.36	@	.37
Tellicherry, bags	.38	@	.39
red, chillies, Japanese, No. 1, bags	.24	@	.24¼
Mombassa, bags	.64	@	.65
white, Muntok, bags	.58	@	.59
Singapore, bags	.56	@	.57
Pimento, bags	.21	@	.22

Italian Saffron Trade Organizes Consortium

A consortium of Italian small producers of saffron has been formed at Caporciano, Italy, in order to defend collectively their interests, Aquilian saffron, at one time renowned in all European markets for its particular characteristics—scent, savor and color yield—has lost prestige today because it is adulterated and sophisticated by speculators. The consortium proposes to re-endow the product with its just qualities or values, and to facilitate its sale direct to the consumer.

Clove Price Rebate Is Offered Vanillin Makers

Reports current in New York last week indicated that the French government in the Island of Zanzibar has adopted a rebate system which is expected to recover to the planters some of the business in cloves lost by them through the development of the synthetic production of vanillin.

The rebate was understood to be 5c. per 35 pounds, which was worked out as amounting to approximately 3⅛c. per pound. The rebate will be in the form of a drawback and will be allowed to vanillin makers in Europe and the United States.

To enjoy the lower cost of raw material the vanillin producers must import their cloves directly from the primary market, cutting out all transactions with middlemen.

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